A Course of Lectures ON PAIN,

AND THE

THERAPEUTIC INFLUENCE OF MECHANICAL AND PHYSIOLOGICAL REST IN ACCIDENTS & SURGICAL DISEASES.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE IV.—PART I.

MR. PRESIDENT AND GENTLEMEN,—In the early part of these Lectures I mentioned that, although some diseased joints may occur in persons of a scrofulous constitution, it would not necessarily follow that the diseased joint was scrofulous—that is, that there should be tubercles in the bones, or that they could not repair themselves by time and opportunity. Here are two drawings (Figs. 25 and 26) which well pourtray what one might call a scrofulous patient.

FIG. 25.

G. C. A——, aged seventeen, came under my care, at Guy's Hospital, Nov. 2nd, 1853, and died June 2nd, 1854. The right elbow-joint was surrounded by dense fibrous tissue, forming a natural splint to the joint. A section was made into the right elbow-joint. The articular cartilage and articular lamina of all the bones forming the joint were gone; the articular extremities of the opposing bones were rough, spongy, vascular, and in contact; and a comparatively soft, incipient, bony anchylosis had already taken place between the head of the radius and the external condyle of the humerus. No tubercles were detected within the cancellated bony structure. The ossific anchylosis or consolidation of the bones forming the left elbow-joint was perfect, and there was not the slightest motion in it. He died with large tubercular cavities in the lungs; yet you will observe that the left elbow-joint is perfectly anchylosed, and the right was proceeding slowly towards the same result, although before that object was attained death was caused by the disease of the lungs.

FIG. 26.

Strumous (scrofulous?) disease of both elbow-joints; joints well anchylosed, but in bad positions.

This drawing represents from nature another instance of good anchylosis of both elbow-joints, occurring in what is termed a scrofulous youth; and I suppose he was so, yet both elbow-joints are perfectly anchylosed—anchylosed, however, in a very unfortunate position for him, certainly, because he could not feed himself except by bending the head towards the left hand, nor could he dress himself or make any important use of his arms.

FIG. 27.

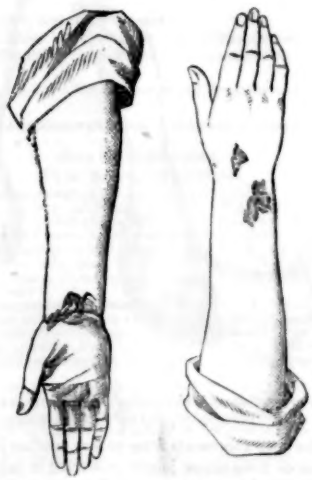
The following is a brief reference to this case:—W. S—— was fourteen years of age when he became, some years since, an in patient of mine at Guy's Hospital. His mother stated that he was always an unhealthy child, and that when four years old he had small-pox, followed by what the doctors called "scrofular abscesses." Disease began simultaneously in both elbow-joints. No splints were applied. In order to determine the direction of the forearms, which were allowed to keep in the position represented in the engraving, several small pieces of bone had been removed at different periods from both joints. There was no pain in either joint, but some thickening remained in the surrounding soft structures. By passing a probe into the opening of a sinus seen upon the right elbow, loose pieces of bone could be detected.

Here, then, are two cases of (scrofulous?) disease of both elbow-joints. Although a markedly scrofulous constitution was

manifest in both patients, yet anchylosis has been accomplished in both instances.

These two drawings show the hand and forearm of a young girl, aged eighteen, who came under my care, in 1852, with extensive (supposed scrofulous?) disease of the carpus and wrist-

FIGS. 28 & 29.



joint of the right side. The cause of the disease was not known. Suppuration amongst the bones had occurred, leaving several discharging sinuses both on the anterior and posterior aspect of the wrist. It was very painful, and the bones could be made to grate upon each other; a probe detected denuded bone. An hospital surgeon, seeing no probability of saving the arm, had arranged to amputate it in a day or two; but before doing so I was consulted, and, as the girl was in tolerable health, I advised her not to submit to the operation. A leathern splint was moulded upon her hand and arm, so as to keep the wrist absolutely at rest. This splint was worn day and night during several months, and she was sent to Margate to reside. The pain and discharge soon diminished, the sinuses closed, and she got well as regards the wrist, except that the wrist-joint was anchylosed, so that she could not bend the wrist, but she could move her fingers and thumb with great freedom in 1853, and her then condition is represented rudely in the drawings. The dark patches seen upon both the anterior and posterior aspect of the wrist indicate the sites of the former sinuses, now closed; the skin is healthy and movable upon the subjacent structures.

Here is another illustrative case, with a rather curious history. This lady I saw four or five years ago. She came to me with disease in some of the carpal bones. She had had a globular cyst or ganglion on the back of her hand over the wrist, and she went to a surgeon to have it cured. He proposed to rupture it by striking it with a hard leathern bound book, but his arm was not very steady. He tried several times to break or burst this ganglion, by striking it with the back of the book, but he could not succeed; in fact, he was not a very good shot. However, at length he gave her hand a tremendous blow with a larger book, which ruptured the ganglion, but the blow led to inflammation amongst the carpal joints. This resulted in suppuration with disease of the carpus, and to the proposal of an amputation of the forearm. It was then that I saw this lady for the first time, with a painful and swollen wrist and hand. Two sinuses were discharging pus, and a probe introduced into them came in contact with denuded bone. A leathern splint was moulded upon the hand and forearm, so as to secure perfect rest to the wrist. No more probing of the wound was permitted. She went to Margate and remained there during several months; the sinuses closed, and although the wrist is stiff, yet she has a very useful hand, as you see it here sketched from nature only a few days since.

These are the only references I shall have time to make to disease of the elbow-joint and carpus cured by "rest." These will be sufficient to intimate the value of "rest" as a therapeutic agent in the treatment of them.

There is, perhaps, no part of the human body in which the beneficial influence of mechanical rest can be established so perfectly, in so many different ways, and in relation to so many different accidental lesions, as the neighbourhood of the knee-joint; so that I could easily extend this subject over two or three lectures, with appropriate illustrative cases; but the only one to which I will now briefly allude, is one of forcible separation of the base of the ligamentum patellæ from the patella. This is a comparatively rare accident, and it requires to be treated by absolute rest to the leg; to elevate the leg and foot so as to relax the extensor muscles lying upon the thigh, and at the same time to employ strips of plaster, horse-shoe shaped, to pull the patella downwards towards the detached ligamentum patellæ. Here is the record of a case of this kind which came under my care at Guy's Hospital a short time since.

Case of rupture of the ligamentum patellæ at the junction of the ligament with the patella.

Robert B——, aged forty, was admitted into Cornelius ward on the 12th of October, 1861, with a good deal of swelling and ecchymosis over the whole of the knee-joint, and complete inability to lift the leg. The account he gave of the accident was, that he was standing on a plank which was suddenly tipped up, and his heel became fixed in a deep groove in the plank. He was thrown with rapidity first forwards and then backwards with great force, whilst his leg was bent under him. He felt something give way at the knee, and from that time he lost the power over his leg. When placed in bed, the patella was found entire, drawn upwards, and unnaturally movable, especially in the long axis of the limb. There was a strongly-marked depression, immediately below the apex of the patella, into which the finger could be thrust almost to the joint, so that the condyles of the femur could be easily felt; the lower end of the patella could be directed backwards to a great extent, or could be tilted forwards by pressure on its upper edge so as to project the apex under the skin. The limb was extended upon a straight back splint, and placed in an elevated position, so as to relax the extensors of the knee-joint. A lead lotion was applied over the whole of the joint. When the general swelling had subsided, two long pieces of strapping were applied, crossing one another above the patella, so as to draw it downwards, and to keep its apex near the upper part of the ligamentum patellæ.

Nov. 17th.—The patient was allowed to get up, with a short splint extending along the back of the thigh and leg, so as to keep the joint at rest, and to prevent traction upon the ligament.

23rd.—He left the hospital by his own desire, cured so far only that the configuration of the joint was nearly normal, except some swelling and fulness, and tenderness on pressure at the junction of the patella with the ligament; and as yet he had not the power to lift the limb by his own efforts. He was ordered to continue the use of the short back splint, and to get about on crutches.

On quitting the hospital, although the union of the patella to its ligaments was tolerably good, yet it was not at all equal in strength and firmness to what the patient required of it. He ventured to walk about a great deal too much upon it, and he soon came back to the hospital with the parts inflamed and swollen. Having remained in the hospital at rest upon his bed for a short time, he went out again much improved, with the intimation from me that it would take at least six months before the repair would be complete.

THE GEOGRAPHICAL EXTENT OF LEPROSY is perhaps greater than that of any other like disease. It is common in China, and extends to the Philippine Islands, Borneo, Java, and almost all the islands of the Indian Ocean, including Madagascar, Mauritius, and the Isle of Bourbon, where it is frequent among the coloured and black races. This is also the case in most of the islands on the west coast of Africa, the Cape de Verd, Canary, and Madeira groups, as well as the Azores; even Iceland and the shores of Greenland are not exempt.

MUNIFICENT BEQUESTS.—The late Mr. Abraham Musgrave, of Bromley, near Leeds, has bequeathed to the Leeds General Infirmary, £10,000; the Leeds House of Recovery or Fever Hospital, £10,000; the Leeds Public Dispensary, £10,000; the Leeds Eye and Ear Infirmary, £10,000; and the Bradford General Infirmary, £10,000. This noble act on the part of the late Alderman deserves special commendation.—The late William Barker, Esq., of Barnes Green, Surrey, has left to the Brompton Consumption Hospital, £200, and £50 each to the Chelsea, Brompton, and Belgrave Dispensaries.

Gulstonian Lectures
ON
ASSIMILATION & THE INFLUENCE OF ITS DEFECTS ON THE URINE.

Delivered at the Royal College of Physicians, London,

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LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—The subject I have chosen for these lectures, which I have had the honour of being called upon to deliver before you, is that of assimilation and the influence of its defects upon the urine. The term "assimilation" is limited by some to the process by which the constituents of the blood are transformed into the several components of the animal fabric; but I comprehend it as implying a more extended signification—the act of bringing to a likeness, whether of food into blood, or of blood into organs and textures. I follow Dr. Prout in this general acceptation that I am giving to the term assimilation. I follow him also in his subdivision of the term into primary and secondary assimilation. At the outset, however, I have to state that it is only with the former these lectures will have to deal.

Researches in organic chemistry have shown that the proximate principles of our food, vegetable as well as animal, present the same chemical characters and constitution as the proximate principles belonging to the solids and fluids of our bodies. Now, the object I have in view is, to take the chief alimentary principles and trace them through the process of elaboration—primary assimilation—which renders them fitted for administering to the requirements of life; and at the same time to show that, when these principles are allowed to reach the circulation without having first been properly assimilated, they prove useless to the system, and are ejected with the urine in the form they were introduced.

To give an illustration: the albumen of the egg, when received in the ordinary way of food, is applied in the processes of life, and lost sight of after introduction into the system. This same albumen of the egg, however, reaching the circulation without having undergone the proper assimilation, is eliminated with the urine without having been changed or appropriated. Thus an unnatural condition of the urine is created, through an alimentary principle being permitted to enter the blood in its original form.

This experiment affords a striking proof—a proof that may be taken as ground to work upon—that something is needed to adapt our food for entrance into the circulation, in order that it may be retained in the system and made subservient to the economy of life. This something constitutes primary assimilation, which, as I have said, I propose to speak of as far as the information I possess will permit. By afterwards looking at the effect that occurs, where no assimilation has been allowed to take place, we shall see how conditions of the urine identical with those belonging to certain well known affections of the human subject may be artificially brought about.

In order to proceed systematically, I shall adopt the classification that divides our alimentary principles into albuminous, oleaginous, and saccharine groups. And I purpose to take these groups in the order in which they have just been mentioned.

First, then, of the albuminous group, which includes the nitrogenized constituents of our food—the plastic elements of nutrition of Liebig—the materials which go towards the renovation of our tissues. In this group we have albumen, fibrine, and caseine—principles procurable alike from both kingdoms of nature; and connected with these is animal gelatine, which is also an azotized alimentary principle. None of these principles are acted upon chemically till they reach the stomach. In the mouth assistance is given towards the subsequent carrying out of their assimilation; but this is only by a mechanical process of reduction. Through mastication our solid food is placed in a more favourable position for being penetrated and dissolved by the digestive fluid with which it is afterwards brought in contact. I have experimented with saliva, and have failed to observe it possess any digestive properties upon the albuminous group. At the end of six hours, in an experiment not long since performed, the hind legs of a frog, introduced into an ounce of saliva acidified with twenty minims of hydrochloric acid, and exposed to a temperature of 112°, remained without any appearance of digestion. It appears possible, however, that insalivation may aid gastric digestion by entangling air with the food; for during my experiments upon artificial gastric digestion I have certainly noticed that parts near the surface of the liquid which was exposed to the air have been more energetically attacked than those below.

The stomach is the portion of the alimentary tract which is specially intended for acting upon the albuminous group. It is through the medium of the stomach that the nitrogenized constituents of our food are liquefied, and thus reduced to a state fit for absorption. Such, in fact, is what is accomplished by the process that is spoken of as gastric digestion; and just, and only just, at the period required a fluid is poured out from the glandular structures in the walls of the organ, which fluid constitutes the effective agent for attaining the object that is required.

In the position I am occupying it would, I consider, be a mistaken course if I attempted to waste the time of my audience by entering into full particulars regarding what occurs in the stomach. Nevertheless, there are a few points connected with the physiology of digestion as one of the steps towards assimilation, that I venture to think may be advantageously touched upon here.

It may be taken for granted as a sufficiently established fact that the solvent properties of the gastric juice over albuminous materials depend upon the presence of two principles—an acid, and a nitrogenized substance or ferment, known by the name of pepsine. It does not appear to signify what may happen to be the nature of the acid present, but we must have an acid of some sort with pepsine, as essential constituents of a digestive fluid.

I wish to give you visible evidence of the energetic properties possessed by the gastric juice, and to show you that neither the acid nor pepsine alone is capable of exercising any solvent effect. The test that I have been accustomed to employ in my experiments consists of the flesh of the frog. I have selected the frog for this purpose because its skin and flesh are easy of digestion, and because the effect is so neatly discernible. The animal is killed and the hind quarters are removed, just as is done for galvanoscopic purposes. A piece of thread being attached to the spine, the legs are suspended to about the middle of the thighs in the liquid to be examined, contained in a suitably-shaped glass or a wide-mouthed bottle. Exposure to a moderately elevated temperature is now necessary, and this I accomplish by carrying on the experiment in a water-oven with a thermometer introduced, so that the temperature of the interior may be with facility read off. The temperature I employ is from 100° to 110°. If below this, digestion is comparatively slow; and if much above it, digestion is prevented by the destruction of the nitrogenized digestive principle; but it requires about 140° for this to take place.

In this experiment (to which I will first allude) we have contained in the bottle an infusion of the dried mucous membrane of the pig's stomach treated with twenty minims of strong hydrochloric acid to the fluid ounce. This is the strength of acidity that I always employ. After exposure for four hours to a temperature of 110°, the effect has been, as may be perceived, that the portion of the frog's legs immersed in the fluid has been almost entirely dissolved. One leg appears as though amputated at the surface of the fluid, and the other has the foot removed, and the bones that remain denuded. There are some fragments of bones and shreds lying at the bottom of the vessel; but these in a short time longer would have completely disappeared. It is truly remarkable the solvent power possessed by this gastric juice.

In these two other experiments we have a simple infusion of the stomach on the one hand, and a mixture of hydrochloric acid and water, twenty minims to the ounce, on the other. Although there has been an exposure for upwards of six hours to the elevated temperature, yet not the slightest evidence of any solvent action is perceptible. The cutaneous surface remains quite as intact as when the experiments were commenced.

The nitrogenized principle necessary to the constitution of a digestive fluid is only yielded by the walls of the stomach. Nothing can be extracted from the mucous membrane of the intestine, bladder, or any other structure, that will give us a

fluid endowed with the solvent properties enjoyed by gastric juice. I have here an infusion of the mucous membrane of the small intestine of a dog. It has been treated to the usual extent with hydrochloric acid, and exposed after the introduction of the frog's legs into it to an elevated temperature for between seven and eight hours. No signs of digestion are to be perceived.

It is affirmed, however, that the pancreas contains and yields a principle which is capable of exercising the same digestive properties over nitrogenized materials as the gastric juice. Purkinje and Pappenheim in 1836 obtained from an acidulated infusion of the tissue of the pancreas a liquid, which, according to their experiments upon albuminous materials, they considered to constitute a very active artificial digestive juice. Lucien Corvisart considers the pancreas as a kind of supplementary organ to the stomach, intended to digest, after a copious meal, what has remained undigested by the stomach. He says that the nature of the two digestions is alike so far as the result is concerned, each leading to the production of albuminose or peptone. Whilst, however, acidity is a necessary condition of the gastric juice, Corvisart states that the pancreatic juice enjoys the privilege of acting equally well, whether in an alkaline, neutral, or acid state. I have submitted the pancreatic juice to the test of the frog's legs, but have failed to find it possess an action that can, so far as I can see, be compared to that of the gastric juice.

In one experiment I took an ounce of good pancreatic juice—a juice that acted energetically in emulsifying fatty matter and converting starch into sugar—and treated it with thirty minims of hydrocloric acid. I used a larger quantity of acid than in my experiments upon gastric digestion, because the pancreatic juice possesses a strongly alkaline character which has first to be overcome. On the addition of the acid there was a copious effervescence, and a production of a white albuminous-looking precipitate. The frog's legs were introduced, but, after eight hours' exposure to a temperature of 112°, there was no appearance of digestion perceptible.

In the other experiment, the juice was taken in its natural state. The frog's legs were introduced into an ounce of it, and exposed for eight hours to a temperature of 112°. At the end of this time, there was a most offensive smell of decomposition given off, which is the reverse of what occurs with the employment of gastric juice. The soft structures of the legs were in a slimy state, and hanging loosely from the bones, which were exposed. The legs looked as though they had been immersed in water for some time, and were in an advanced state of putrefaction. The bones, however, were not in the slightest degree softened, and the joints were firm, the ligamentous structures remaining quite intact. With gastric digestion the bones and joints are attacked equally as well as the other structures. In fact, the effect produced by the pancreatic juice seemed more of a putrefactive character than a digestion comparable to what occurs under the influence of the gastric juice.

What is required, then, for that special digestion or solution of albuminous materials which is effected in the stomach, is a certain animal principle yielded only by the gastric mucous membrane, and the presence of an acid. As to the mode of action of the gastric juice, it is customary to say that it exerts its influence through the agency of catalysis or fermentation. Terms like these are easily employed; but they do not help us far towards elucidating the exact nature of the cause which leads to the manifestation of the peculiar efficacy enjoyed by the pepsine and acid in combination.

In conformity with the perfection that is throughout living nature noticeable in the adaptation of the means employed to the ends to be attained, the production of a digestive fluid only occurs at the period when its presence is required. It is only upon the application of the stimulus of solid extraneous matter, alimentary or otherwise, introduced into the interior of the stomach that the secretion of gastric juice takes place. When a meal has been disposed of, and the organ has become empty, its surface is only moistened with a glairy mucus, which may be neutral or even alkaline in character. In Dr. Beaumont's observations upon Alexis St. Martin, the secretion of gastric juice, as witnessed through the fistulous opening, was seen to take place from the surface of the stomach when excited into action, like the exudation of fine drops of perspiration upon the surface of the skin, and to distil from the mucous coat as a pure, limpid, colourless, and always distinctly acid, fluid.

Although I have no reason to take exception to what has just been stated, yet there is one point in reference to the secretion of gastric juice upon which I would wish for a short time to engage your attention, as I believe it to have a not unimportant bearing connected with it.

From what I shall have to mention, it would seem that the secretion of gastric juice must not be looked upon in so simple a light as it might appear susceptible. It is true the secretion of a digestive fluid is intermittent, but it is not both the essential constituents of this digestive fluid that are thus only intermittingly produced. The presence of pepsine is constant; whilst it is the acid fluid which distils from the mucous structure when excited by the irritation of foreign matter against the surface. Pepsine, in fact, exists in the mucus and in the epithelial layer under all conditions of the organ. Probably, therefore, the pepsine and acid are derived from different sources. From the mode in which the acid fluid appears, it would seem to come from the gastric follicles. The pepsine, on the other hand, seems to be derived from the epithelial layer forming the free surface of the interior of the organ. The mucus secreted by these epithelial cells has a special character in containing pepsine; and when the acid fluid rises from the follicles beneath, under the influence of the stimulus of food, it will necessarily mingle with the product of secretion of the epithelial surface, and so produce a digestive fluid. For reasons that I shall have afterwards to advert to, there seems to be a cause for rendering it probable that the acid and pepsine should not be secreted together by the glandular structures—the gastric follicles—situated in the substance of the membrane: the integrity of the organ itself might be seriously endangered thereby.

The pepsine that I have recently been employing in my experiments has been derived from the stomach at a period of fasting. To procure this principle, indeed, for the production of an artificial digestive fluid, it does not in the slightest degree signify whether the stomach be taken from an animal in which digestion is proceeding or not. It is from the stomach of the pig that I generally obtain my pepsine; and the pigs that yielded it for my recent experiments, I was informed, had not been fed since they left Holyhead on their way from Ireland to London, at which latter place they were killed. They must, therefore, have been fasting for a considerable time prior to death.

But to prove that pepsine is present in the stomach even after prolonged fasting, the following experiment was carried out under my own observation. A dog having been fed on the Saturday, was kept without food till the Tuesday following, when it was killed. Seventy-two hours had thus elapsed since the last meal. The stomach was removed and dried, and I have here an artificial digestive fluid that has been prepared from it. As may be perceived by the effect upon the frog's legs, it possesses the most energetic digestive properties. Before the stomach was dried, the viscid mucus that was in its interior was collected by gently scraping it with a blunt instrument from off the surface. This, when acidulated, presented a digestive fluid as active as that procured from the stomach itself.

The epithelial lining of the stomach, then, possesses the power of producing a mucous fluid which is peculiar in containing a principle that is not to be met with elsewhere. This peculiarity in secretive action exists also as a constant character. At a period of repose as well as of activity of the organ, the mucus discharged from its surface is impregnated with the azotized digestive principle. It is the acid fluid poured out by the glandular follicles that is secreted only, when the stomach is stimulated by the contact of foreign matter against its surface. But without this acid fluid the animal principle which the mucus contains is of no avail towards the process of digestion.

Even under the severest forms of disease pepsine is still to be met with in the mucous membrane of the stomach. Taking seven stomachs from the post mortem room of Guy's Hospital, which were derived from patients who had died respectively from typhoid fever, phthisis, apoplexy, amyloid degeneration &c., lithotomy, ovarian disease, and heart disease with typhoid symptoms, I found that each yielded me an infusion, which, acidulated with the usual amount of hydrochloric acid, possessed energetic digestive properties, as shown by the attack made upon the tissues of the frog.

I consider that what I have just been stating has a bearing of importance in reference to the administration of pepsine as a medicinal agent. If pepsine thus exist in the mucus of the stomach instead of being produced by a special secretive action taking place only under the influence of food, doubts may arise as to the real advantage to be derived from its artificial preparation and exhibition with the view of aiding the digestive process. Leaving this, however, as an open question—for it is quite possible that under certain circumstances the mucous surface of the stomach, like other mucous surfaces, may secrete a low form of material which is but ill adapted for the purposes required of it,—I say, leaving this part of the question an open

point, I will proceed to submit for your inspection experimental results which will give you an idea of the amount of real assistance that can be expected to be artificially given through digestion towards assimilation by specimens such as these, with but a single exception—specimens that I purchased from our leading establishments in London as pepsine, or the digestive principle.

ON THE

DOCTRINE OF IRRITATION AND ON THE NATURE OF THE EARLY CHANGES IN INFLAMMATION.*

BY LIONEL S. BEALE, M.B., F.R.S.,

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IT is almost universally held that what is termed "irritation," or "excitation," exerts a most important influence upon the process of nutrition. The action of "stimuli" upon living matter is considered to be a necessary preliminary to the manifestation of any phenomena. So, different kinds of stimuli or excitants—mechanical, chemical, and electrical—are spoken of; and it is held that every vital action must be preceded by an "excitation."

Increased "irritation" is supposed to "excite" increased action, and to cause a living "cell" to take up an increased proportion of nutrient matter within a given period of time. Irritation is believed to be the starting point of those complex phenomena which in the higher animals we speak of as "inflammation"; and, according to the views now held, it is impossible to conceive the process of inflammation taking place without the previous occurrence of irritation.

Although of late years the changes occurring in the anatomical elements of tissues (cells) in health and disease have been carefully studied by very many observers, there still exists the greatest difference of opinion with regard to the nature of the processes which occur, even in the very simplest structures, during their growth.

A normal epithelial cell, for example, takes up a certain quantity of nutrient matter within a certain time, and certain changes are produced in a definite order and in regular succession. This cell, it is said, may be excited or stimulated to *increased action*. The normal process of nutrition may be exaggerated, and the cell may take up a much larger quantity of nutrient matter within a corresponding period of time, and increase in size with greater rapidity than before. Other changes may be observed in the epithelial cell, but these need not now be considered.†

What is the nature of this process of "stimulation," "excitation," or "irritation," and how does it produce these most important results? How is it, for example, that a particle of sand falling on the conjunctiva, or a thread passed through a living tissue, causes an increased action of the cells in the immediate neighbourhood? It is certain that the change is not dependent upon nervous influence, for it occurs in tissues destitute of nerves, and may be observed in plants. To say that the exaggerated action is the result of the "irritation" is no explanation at all: it is no more than stating the fact, that the cells grow faster, and take up more nutrient matter, soon after a foreign body is forced into close contact with them, so as to displace or injure them; for not only are the cells that are touched influenced, but all those in the immediate neighbourhood.

In every case of the so-called *stimulation* or *excitation*, the access of nutrient matter to the living and active part of the cell is facilitated. By the "irritant" perhaps a hole is made in the outer inactive matter (cell-wall), or a portion of it may be removed. The pabulum reaches the living matter more readily than it does under normal circumstances. The rapidity of growth of living matter—that is, the rate at which living matter communicates to inanimate pabulum the same powers with which it is endowed, varies simply according to the rapidity with which the inanimate matter comes into contact with the living matter. The soft living matter in normal tissues is always separated from the nutrient pabulum by a certain thickness of matter which possesses no inherent powers of growth (cell-wall). If this be rendered more permeable to nutrient fluids, or reduced in thickness, or a portion of the surface torn away so as to expose the soft matter within, it is obvious that there will be greater freedom of access for the nutrient pabulum, supposing this to be present. The soft living matter will take up the inanimate pabulum more rapidly than normally, and convert it more quickly into living matter. In fact, normally, the conversion of pabulum into living matter proceeds *under certain restrictions*, while under the conditions supposed *the restrictions are to some extent removed, and so the process goes on faster.*

So far, then, from "stimuli," "irritants," or "excitants" *causing increased action*, they operate simply by removing restrictions, and thus the living matter is permitted to grow much faster than was possible under the conditions which existed previously. Irritation is not the starting-point of inflammation, but the first change is simply a more rapid appropriation of the nutrient matter by the living matter of the cells, consequent upon the impediments which interfered with the free access of this nutrient matter being diminished. The process of nutrition—the conversion of inanimate pabulum into living matter, may be explained both in health and disease without assuming the occurrence of an *irritation or excitation*, and we may study and describe the changes without using the terms *irritants, excitants*, or *stimuli*.

* Part of a Lecture delivered during the Summer Session, 1862.

† See Lectures "On the Structure and Growth of the Simple Tissues."

ON SOME

CASES OF SMALL-POX TREATED BY THE SARRACENIA PURPUREA.

BY H. CHALMERS MILES, B.A., F.S.S., L.R.C.P.E.

TOWARDS the conclusion of my paper "On the Employmen of the Sarracenia Purpurea as a Remedy for Small pox" (which was recently published in THE LANCET, with the courteous sanction of the Director-General of the Army Medical Department), I ventured to express an earnest hope that any of my professional brethren in civil life who possessed wide opportunities for collecting authentic data, would test the efficacy of the root in as large a number of cases as their practice permitted. It must have been obvious to everyone who favoured the monograph with perusal, that my efforts were directed towards placing before the profession, succinctly and without reserve, each item of information which I was able to gather concerning the medicinal action of the sarracenia purpurea, and its effects in variola, whether modified or pure. Any unprejudiced and candid reader will have readily observed that every sentence which was penned, every expression which was uttered, carried with it the single intention of conveying to the medical world every appreciable fact which the writer had stored on this novel and highly-important subject. A long interval—nearly a twelvemonth—has elapsed since the original communication introducing the "pitcher-plant" as a medicinal agent in small-pox was read to, and discussed at, the Epidemiological Society; and two months have passed away since the transmission from Canada of my second manuscript on this subject, and its publication in the pages of THE LANCET. It will therefore, I think, be acknowledged on all sides that no eager haste or unseemly precipitancy has been exhibited in this matter; and we may *now* anticipate that intelligent and impartial practitioners will give an early and ample trial to a remedy which, it is believed, will deprive this loathsome and dangerous disease of nearly all the horrors with which popular imagination invests it.

In furtherance of my desire that the profession should have the earliest information concerning the remedial action of the sarracenia, I beg to place on record a few brief notes of four very interesting cases of variola treated by the root, which have been kindly forwarded to me by Mr. S. K. Burch, of Shaftesbury-crescent, Pimlico; and shall be very glad if such cases are permitted occasionally to appear in THE LANCET, until such time as in my opinion the effect of this medicine on small-pox is placed fairly and intelligibly before the profession and the world. I make no comment on the cases narrated, while the practice of publishing only "*simple* cases" is altogether ignored.

Mr. Burch mentions that he did not see my paper until ten

days after it was published; but that on the 31st of October he commenced the administration of the sarracenia to Mrs. A., who had several days previously been attacked with "distinct small-pox of very severe type." On the 31st, when the sarracenia was first given, "the pustules on the face were so full that, although distinct, a pin's point could scarcely be placed between them. The secondary fever was very high." On seeing her the next day (the decoction of the root having been given at the strength recommended, and at the prescribed periods), Mr. Burch found "the change very great: all the fever had left, the pustules on the face were half the size and of a dark-brown colour, and the skin was to be seen between them, while on the legs they were entirely depressed and flattened. Many of them curiously rose again for one day, then flattened and desiccated. On the 4th of November they all dried up and fell off. The patient remarked that she felt better after every dose. The sarracenia did not act as a diuretic *after* the first day; but the tongue rapidly cleaned. Mrs. A. was delirious the first night she took the decoction, and her husband and nurse had great trouble in keeping her in bed, as she was so anxious to get at the medicine." There were no marks of pitting in any of the cases now related.

CASE B.—A lady, who lives in the same house as the former patient, took the sarracenia in mild doses as a *preventive;* but on the 11th of November the eruption (varioloid) began to appear, though in a very slight form, about thirty or more pustules showing themselves in different parts, except about the lips, where they were confluent, and rapidly becoming purulent; they desiccated, so that on the 15th she was quite well.

CASE C.—A nurse in the same house also took the decoction as a preventive, and had variola in a still lighter form, and was ill only a few days.

CASE D.—"Sent for me on Nov. 14th. The varioloid eruption was beginning to appear about the face, &c. It soon became confluent in many places, but about the body the pustules were distinct. On the 21st, having given the patient no medicine besides the decoction, there were no signs of desiccation or pitting; the pustules were purulent, but not filled out as they usually are on the eighth day; those on the legs were of a purple colour and small. She has been slightly delirious on several nights, but the fever has not been high. I told her to take the medicine regularly, when she said there was no fear of her not doing so, as she quite longed for the time to take it. On the 22nd the pustules began to dry up, and on the 27th were falling off rapidly; where they have done so there are no signs of pitting."

Each of these patients had been vaccinated. About Case A there is an additional circumstance worthy of mention. "The lady was between three and four months advanced in pregnancy. During the two days prior to commencing the sarracenia she hardly felt the child, and thought it dead, and also had a slight bloody discharge. After taking the decoction two days, she felt the child as strong as ever. This lady has been prematurely confined (between six and seven months) on two previous occasions."

Mr. Burch concludes by remarking—especially with reference to the last case—"Although the sarracenia has not acted quite so rapidly as I expected, still it has succeeded wonderfully, and will be a great boon. I am recommending all my medical friends to try it, and shall be happy to give you any further information, as I think the employment of the sarracenia purpurea in small-pox cannot be too much known."

Naval and Military Club, Clifford-street, Dec. 1st, 1862.

ON DIPHTHERIA.

BY MICHAEL W. FISHER, M.D. GLAS.

THE mortality from diphtheria is still so great that any speculations as to its cause or hints as to its treatment may not even now be out of place; and it is because I differ so widely from Dr. Wade in the treatment of this disease, as recorded in a most valuable paper on this subject which appeared in THE LANCET of the 23rd of August, that I am tempted to note down my own experience, feeling well assured that I should have a far greater dread of it were I dependent on such a system of treatment as that recommended by Dr. Wade.

If, as I think, I have really discovered the cause of diphtheria to be the marsh malaria, it will be to others, and has been to me, much more satisfactory to have to do with the cause rather than to have to endeavour to eliminate an unknown poison in an unknown manner by such drugs as iodide of potassium, cream of tartar, &c.

For my own part, I am most fully convinced that diphtheria has for its cause the malaria, which conviction has gradually forced itself upon me, *nolens volens.* I have made no theory on the subject, and afterwards endeavoured to bolster it up with facts; but it is simply the result of a not very long experience in a locality where the malaria is a very pregnant cause of disease.

I would not have it thought that I am mistaking the kind of sore throat named diphtheria, as I studied it under Trousseau before it had been well recognised in England, and have seen the system of treatment adopted in France almost, if not entirely, useless, both in their hands and my own.

The plan of treatment I adopt is usually as follows:—An emetic to begin with, consisting of equal parts of sulphate of zinc and ipecacuanha, which cleans the stomach and bowels of a large quantity of vitiated bile. The patient after this assumes a less nervous, less depressed appearance; the pulse expands and increases in force. Indeed, I believe this vitiated bile has much to do with all the unpleasant concomitants of diphtheria; so much of it is often voided and vomited that it would seem that whilst there medicines were unable to produce their ordinary effect.

I consider it of the first importance to clear out the alimentary canal; and do not hesitate to order a strong purge if needful, always being careful to avoid calomel or mercurials.

As soon as the vomiting has ceased, I prescribe fifteen minims of tincture of iron in water, to be repeated every three hours, or more frequently if the symptoms are really alarming. At bed-time I order the following draught:—Sulphate of quinidine, fifteen grains; dilute sulphuric acid, half a drachm; tincture of opium, seven minims; water to an ounce and a half: to be repeated the second, fourth, and seventh days, and, if necessary, for a longer period at longer intervals. I rarely find it necessary to administer more than four such doses, and the throat usually begins to assume a healthy healing appearance after the second day.

Since adopting this system of treatment, I have lost but one patient—a child who was so refractory that the medicines were not taken; nor had a troublesome, tedious case, or one followed by any of the sequelæ so often met with after this so much dreaded disease.

I enjoin a liberal diet, especially milk, wine if attainable, if not, beer or porter, taken in moderate quantity.

I have not found the same satisfactory results from iron and quinidine, or quinine, administered in the same mixture, nor with the quinidine draught without the iron at regular intervals.

I do not now purpose giving my reasons for believing and stating that diphtheria is but a form of ague or intermittent fever. I have only desired to record the result of a very satisfactory mode of treating a disease so much dreaded both by physician and patient, reserving for a future time the results of my experience and reasoning on the subject of the malaria.

Dr. Wade seems to have met with many symptoms connected with diphtheria that I have often observed. I more particularly allude to notes Nos. 9 and 13, wherein mention is made of such symptoms as somnolence, coma, indifference to surrounding objects, albuminuria, suppression of urine, rheumatic swellings of the joints, &c., which tend to show that the same disease is due to the same cause in different localities. I have never observed croup as a complication of diphtheria; but I have seen it due to the same cause, and yield to a somewhat similar treatment.

The post-mortem appearances, as observed and recorded by Dr. Wade, are such as we would expect to meet with in a case of death from malaria. I have not been able to observe such appearances; but doubt not that some alteration of both liver and spleen might be found in every case of death from diphtheria.

In note No. 57, Dr. Wade states that "the faucial exudation should be considered as the local manifestation of a general disease." I entirely coincide in this opinion, and never adopt any local treatment, as nitrate of silver, nor have I ever seen any benefit result from such applications.

I would remark, lastly, that such a dose of quinidine may only be prescribed after the bowels have been well cleared out, and the patient in bed, as in either case, if these precautions be neglected, vomiting is pretty sure to be the unwished-for consequence; indeed, some uncomfortable symptoms are generally experienced from the first dose, after which the medicine is well tolerated if not administered more frequently than here recommended.

Terrington St. Clements, 1862.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

KING'S COLLEGE HOSPITAL.

MELANOTIC DEPOSIT IN AN ULCER INSIDE THE LIP; EXTIRPATION.

(Under the care of Mr. FERGUSSON.)

IN our "Mirror" of the 16th of March, 1861, (p. 262,) several interesting examples of melanosis were recorded, and amongst them one of a tumour of the left arm, growing from the cicatrix of a mole eradicated by caustics. The patient was a woman, aged thirty-nine, in King's College Hospital, under the care of Mr. Fergusson. She was discharged with the wound entirely healed. Some months after she was readmitted for recurrence of the melanosis in the cicatrix, and underwent a second operation of removal, with similar success in regard to the healing of the wound. She has not been seen since then, and whether she has remained well is conjectural; but the probability is that the disease has not returned, otherwise she would again have applied for relief.

A case of not less interest, although comparatively trivial, was admitted in October last. The patient, an elderly man, had an ulcer situated on the inner side of the lower lip, to the left of the median line, which had existed for some years, and had caused much inconvenience. It had resisted the various means employed to heal it up, and had become prominent, with a little induration around its base, and having a central melanotic spot. On the 11th of October Mr. Fergusson excised it, together with some of the surrounding hypertrophied structures, and on making a section, that part of it apparently affected with true melanosis was found to be of the size of a pea. There was all along a bluish tinge of the outer lip, and Mr. Fergusson remarked at the time, that it was a question with him whether he should not have pared more of this away, but he preferred waiting to see whether there would be any return of the disease, in which case he was prepared to remove every trace of discoloration.

The patient made a good recovery, and shortly after left the hospital.

GUY'S HOSPITAL.

MELANOSIS OF THE TOES; PARTIAL AMPUTATION OF THE FOOT BY CHOPART'S OPERATION.

(Under the care of Mr. COOPER FORSTER.)

IN the history of melanosis, it very frequently happens that a mole, or a small black pimple, becomes the primary seat of this disease, especially dangerous when associated with the elements of cancer. Another instance of melanosis was lately under treatment in this hospital, in which the disease showed itself in the foot. The patient, Mary F——, aged fifty years, is from Ash, near Aldershot, and her family history shows no trace of cancer. Her father died from the effects of an accident; her mother is living and well; her brothers and sisters are all healthy. She is married, and the mother of seven children; has enjoyed good health, but the catamenia have been scanty the last twelve months. For many years she has noticed a small black pimple on the outer side of the second toe of the right foot, which gave her no pain nor anxiety till about nine months ago, when it began to increase in size, and has since been constantly growing. On her admission on the 14th of March it involved the outer side of the second toe and inner side of the third, with a large diseased mass situated between and separating them for nearly two inches. The surface is ulcerated, and discharges freely; there is pain of a darting and shooting character. A few enlarged glands are present in the groin. The tumour is clearly a mixture of melanosis and fungus hæmatodes, or medullary cancer.

March 26th.—Mr. Forster removed the anterior part of the foot by Chopart's operation; there was but little bleeding, and the edges of the flap from the sole were bent into contact with those of the upper part of the foot.

A week afterwards the wound had considerably united, and the patient was doing very well. By the 9th of April the stump had healed, and the patient was convalescent. The enlarged glands in the groin are slowly disappearing, thus showing that their increase in size was due to irritation, and not contamination from the disease.

She shortly after left the hospital quite well, since which time she has not been heard of, and the period of immunity from recurrence is therefore for the present unknown.

WESTMINSTER HOSPITAL.

GUTTA-PERCHA BOUGIE BROKEN INTO THE URINARY BLADDER; EXTRACTION BY THE URETHRA AFTER TREATMENT OF THE STRICTURE BY HOLT'S DILATOR.

(Under the care of Mr. CHRISTOPHER HEATH.)

EXAMPLES of various foreign bodies in the bladder, and the operations undertaken for their removal, have from time to time been placed on record in our pages: thus, on the 20th of April, 1861, we reported a case in which Mr. Henry Thompson performed median lithotomy for the removal of a mass of sealing-wax; and on July 2nd, 1859, a case in which Mr. Coulson removed, by the lateral operation, a piece of thermometer-tube. Since gutta percha came into common use, the instances of a gutta-percha bougie breaking in the urethra have not been unfrequent; but, fortunately, the portions are generally extracted before entering the bladder. In the example we record to-day, however, the piece of bougie had been pushed into the bladder, and lain there two months before the patient came under Mr. Heath's care. The case is interesting also as an example of the treatment of stricture by Mr. Holt's dilator, with which instrument that gentleman has had a large series of most successful cases at the Westminster Hospital.

It would appear from the patient's account, that the dilator was employed by the surgeon under whose care he was at first; but as on that occasion only the small-sized tube was used, the stricture was only "dilated" instead of being "split"—a point of great importance, and one upon which Mr. Holt lays much stress; since, in the former case, the stricture at once contracts again, whilst, if the stricture is split, it becomes much more amenable to treatment, and the tendency to contraction is certainly diminished.

For the notes of the case we are indebted to Mr. Arthur Beadles, the house-surgeon.

R. S——, aged forty-nine, applied to Mr. Heath, among the out-patients, on the 21st of October last, to be relieved of a piece of gutta-percha bougie which he said he had broken into his bladder. He had suffered from stricture of the urethra for fifteen years, and has been in the habit of passing bougies for himself. Latterly, however, his No. 6 elastic bougie had become too large, and he made himself one of gutta-percha tapering to the end. On the 27th of August last, he was using this, and got it into the stricture, when it broke off, leaving only three inches in his hand. He managed to extract a piece three inches long with his fingers, and then applied to the house-surgeon of the Homœopathic Hospital to be relieved from a distended bladder. The house-surgeon of that establishment pushed the bougie into the bladder with a catheter, and drew off the urine; and, on the following day, tried to wash the piece out with a double catheter. He afterwards went into the Homœopathic Hospital, but only had a catheter passed occasionally, with one exception, when, according to his account, Mr. Holt's dilator was used, but only with a small tube, and therefore did no permanent good. Mr. Heath examined him, and found that his stricture would only admit a No. 5, and was unable to detect the bougie with a small sound. He was admitted into the hospital, under the care of Mr Heath, on Oct. 28th, and next day Mr. Heath introduced Holt's dilator, and split the stricture up to No. 11 size, drawing the urine off with a large-eyed catheter, so as to favour the discharge of the piece of bougie, but nothing passed. The next day the catheter was again introduced without any result. Careful sounding failed to detect the bougie. The patient had some shivering in

the evening, and passed some blood; and it was uncertain whether the bougie had not come away with it.

Nov. 4th.—The bladder was carefully sounded by Mr. Heath, but nothing was detected, nor were any of his colleagues who tried more successful.

7th.—The patient having felt the bougie again, Mr. Heath examined the bladder, and, having emptied it, felt the bougie with the sound. He therefore introduced a lithotrite scoop, and after considerable trouble caught and extracted a piece of gutta-percha bougie, three inches and a half in length, tapering from about No. 5 to No. 1 catheter. The bougie was much curved upon itself, and somewhat corroded; and there was a slight phosphatic deposit upon it.

10th.—Has had no further irritation in the bladder; but feels very sore in the urethra, particularly if he has an erection.

18th.—No. 11 catheter has been passed with ease two or three times. Made an out-patient in order that an instrument may be occasionally passed to maintain the size of the urethra.

LONDON HOSPITAL.

DEVELOPMENT OF CANCER IN AN INNOCENT GLANDULAR TUMOUR.

(Under the care of Mr. HUTCHINSON.)

M. B——, aged forty-two, admitted March 19th. He was a tall, healthy-looking man, but his countenance was just beginning to acquire a slightly malignant hue. There was a large open cancer in the lymphatic glands of the neck. He said that twenty-four or twenty-five years ago a "kernel" enlarged under the left lower jaw. It never went away, and about seven years ago he went to a "quack" to have it burnt out. After treatment by the quack, there remained a large mass under the blur of the scar left by the caustic. A small fistula also appeared to have remained. There was no further enlargement and no pain until nine months ago, since which time, however, he has had much pain. He was in good general health when it began. The cancer was on the left side, and involved the portio dura of that side, causing paralysis of the face. The mass extended too widely and too deeply to admit of excision. There was no family history of cancer.

There could be no doubt in this case that the tumour existing at the time of the man's admission was true cancer. Its aspect was most characteristic, and it was growing rapidly. On the other hand, as little doubt could be felt that the original tumour was not a cancer. It began at the age at which glandular enlargements in the neck are common, and its progress during nearly twenty years was that of an innocent growth. Even after the treatment by escharotics it did not develop any malignant attributes, the latter having been taken on only about nine months before the date of the man's application at the hospital. Mr. Hutchinson stated that he had seen several similar cases, in which tumours that for twenty years or more had remained stationary, or with only slow enlargement, had become the seats of rapidly progressive cancerous growths. There was, indeed, no reason why a glandular tumour should not be as liable to become the seat of cancer as the mammary gland or the testicle. We remember to have seen a case which confirms these remarks, under Mr. Stanley's care, in St. Bartholomew's Hospital, about four years ago. In the "Pathological Transactions" (vol. ii., p. 337) is the report of a very interesting case bearing on the subject, which occurred under Mr. Hillman's care, in the Westminster Hospital.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

MALPOSITION AND CATARACTOUS STATE OF THE LENSES OCCURRING IN FOUR MEMBERS OF THE SAME FAMILY; CLINICAL REMARKS.

(Under the care of Mr. HULME.)

THE following very interesting and almost unique cases presented themselves at the above hospital in July last. With the exception of one other somewhat similar case, published by Mr. Dixon in the "Ophthalmic Hospital Reports," vol. i., p. 54, but from which the following differ in some important particulars, Mr. Hulme has found no such instance recorded in any British or foreign publication.

The young persons in whom the above abnormal states occurred were four in number (one boy and three girls), of a family of twelve (two boys and ten girls), of whom three died in childhood from hydrocephalus with convulsions, and of these three, one was said to have tremulous eyes. The remaining nine were healthy, and, with the exception of the four now about to be described, had no imperfection of sight. The father and mother were both healthy, and had excellent sight. No hereditary defect was known to have existed on either side. The four whose cases we now describe were healthy-looking, intelligent young persons.

E. P——, aged nineteen, a governess, has always been near-sighted, requiring to use concave glasses to enable her to read music at the piano. Her imperfection of vision from this cause induced her to apply at the hospital, and on examination Mr. Hulme found as follows:—Brown irides; circular but sluggishly acting pupils; tremulous irides at the lower and outer parts; the right eye myopic. She sees to read No. 4 (Jäger's scales) at eight inches with No. 10 concave; without glasses she barely makes out the letters of No. 14. With the left eye she can merely distinguish the lines of large type No 16, but with convex glasses she can make out the letters. The globes appeared healthy, and of normal shape, and there was no external appearance, except a cloudiness in the left eye, which, together with the tremulous irides, induced him to recommend an ophthalmoscopic examination, which showed as follows:—Right eye: Displacement of the lens downwards and inwards; the lens clear in the centre, with commencing opacity at the edge. Humours clear. Optic disc small, with considerable hyperæmia; its area quite pink with injection. Pigment in its upper and nasal side. No crescent. Left eye: Lens displaced upwards and outwards to a much greater extent; cataractous throughout the greater part of its substance, the edges being clear. He could not get a well-defined view of the fundus.

J. P——, aged eighteen, always near-sighted, but not requiring such strong glasses as her sister. Brown irides, both tremulous. Right eye: Lens completely cataractous, displaced considerably downwards and somewhat inwards. She can discern the shadows of persons moving in a room. Left eye: Lens displaced downwards and outwards, but clear; the fundus showed a pink optic disc; pigment in its inner edge, with a somewhat varicose state of the vessels. She uses No. 7 concave.

F. P——, aged fourteen. Blue irides. She sees tolerably well with her right eye without assistance; but with the left she cannot make out any small type. Convex glass No. 7 suits her left eye best. The pupils are circular, but act sluggishly.

Ophthalmoscopic examination: Right lens slightly displaced downwards and inwards, but quite clear; optic disc much injected. Left lens displaced downwards and outwards; not cataractous, but a general haze throughout the fundus.

R. P——, aged seven, boy. With the right eye he sees to read small type without glasses. No vision in the left eye.

Ophthalmoscopic examination: Right eye showed the lens displaced slightly outwards and downwards, but clear; an injected optic disc, with a line of pigment all round its edge; the fundus otherwise normal. Left eye: The lens slightly displaced outwards and downwards; completely cataractous.

In all these cases the amount of vision was of course tested before the use of atropine. The effect of the atropine was to produce increased confusion, and in none of them did the pupil fully dilate; the amount of real displacement was therefore more considerable than it would seem to be in the sketches which Mr. Hulme has. He believes the state to have been congenital; and although probably the lenses may remain in their present condition for a long time, yet we cannot but look forward to the time when the cataractous condition will become complete. The displacements in all the right eyes were downwards and inwards; and in the left eyes, except that of No. 1, downwards and slightly outwards. He could not satisfy himself that the tremulous state of the irides corresponded to the deficient support of the lenses. The convex lens being of use to the left eye of No. 1 was evidently due to its supplying the deficiency of the lens; but the advantages derived from the use of the concave glasses he can only attribute to some alteration in the antero-posterior diameter either of the globes or of the lenses, by which the refractive powers were increased, or from their oblique positions, which would naturally be induced by the loss of their normal means of support.

Another question of interest attached to these cases arises in a surgical point of view—namely, as to the propriety of interfering by operation with the cataractous lenses. Mr. Hulme believes that in all of them the retinæ were healthy; the universal hyperæmia of the optic discs may be easily accounted for, as showing the usual state of congestion induced by over-

straining the accommodative powers. He has therefore suggested the operation for solution of the opaque lenses, the result of which he thinks we may reckon as likely to be successful.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 25TH, 1862.

DR. BABINGTON, PRESIDENT.

THE Secretary stated that the following Fellows had been appointed a committee to inquire into the subject of chloroform:—Mr. Thomas Bryant, Mr. Callender, Mr. Samuel Cartwright, Mr. Curling, Mr. Gascoyen, Dr. Harley, Mr. Prescott Hewett, Mr. Paget, Dr. Priestley, Dr. Quain, Mr. Sibley, Dr. Dundas Thomson, and Dr. West.

A CASE OF POISONING BY OIL OF WORMWOOD (ARTEMESIA ABSINTHIUM).

BY WILLIAM SMITH, ESQ., M.R.C.S.,

SURGEON TO THE CHESTERFIELD HOSPITAL.

The party taking the poison was a male adult. The quantity taken was probably about half an ounce. He was seen within a few minutes of its being taken. The symptoms produced were those of a narcotico-acrid poison, affecting the brain, spinal system, and stomach. He was insensible, convulsed, the jaw clenched, and foaming at the mouth; tendency to vomit was also present. The man recovered under the use of emetics, combined with stimulants and demulcents. All remembrance of taking the poison, or the cause of so doing, was completely wanting on recovery.

The PRESIDENT had never heard that wormwood was poisonous. He thought that is had gone undeservedly out of use. It was used a great deal by the ancients.

Dr. WEBSTER said that a great deal of absinthe was used in France—to so great an extent, and with such deleterious results, that the Government had issued a commission to inquire into the subject. It was said frequently to produce insanity. He was sorry to see that it is now sold largely in England.

Dr. O'CONNOR said that it had been used in this country as a cordial many years. It was worse, he said, than gin and tobacco put together.

Dr. WYNN WILLIAMS said that it was one of the chief ingredients of "teetotal drink."

A CONTRIBUTION TO THE NATURAL HISTORY OF HEREDITARY TRANSMISSION.

BY HORACE DOBELL, M.D.,

PHYSICIAN TO THE ROYAL INFIRMARY FOR DISEASES OF THE CHEST.

The author exhibited photographs of a peculiar malformation of the hands, and a genealogical table of five generations. The deformity had been transmitted through four generations. It had only affected certain members of each generation, males and females, elder and younger children indiscriminately. The children of those who had missed the deformity were also free from it in all cases. It was more marked when inherited from the father's side than when from the mother's. In the fourth generation a marriage occurred between first cousins, each of whom had the deformed hands; but their children, the fifth generation, had perfect hands.

The PRESIDENT said the drawings looked like those from hands affected with rheumatic gout. He observed that in one family congenital absence of the levator palpebræ was hereditary.

Mr. FERGUSSON said that one of the points mentioned by the author was singularly at variance with what was generally received. In one instance, in which two of a family, each having the deformity, intermarried, the children had perfect hands. It was contrary, too, to the experience of breeders of dogs, who could produce dogs with long legs or short legs by choosing two animals which had the respective peculiarities in a marked degree. He thought that the author's paper required some additional observations, and that some doctrine ought to have been founded on it. As a surgeon, his attention had often been directed to malformations, and he had also made inquiries into the cause. He had never obtained any satisfactory explanation from the parents. He thought that in defects of the upper lip and jaw the hereditary influence was very strong. He purposely avoided speaking of the effects of imagination, although a great deal might be said on this point.

Dr. EDMUNDS asked the author what was the character of both hands—if the deformity was symmetrical. The appearance of the photograph was very like that of rheumatoid arthritis, as often seen in the lower ranks of life.

Mr. CHARLES HAWKINS said that in some families transmission of defects was by the female side only. He instanced a remarkable case of transmission of the defect called "colour-blindness."

Mr. GEORGE COOPER related an instance of removal of a supernumerary toe and finger from a gentleman whose three children had the like deformity.

Dr. HODGKIN said the subject was very interesting, but very complicated. The value of the paper was in giving clearly well authenticated facts. To draw anything like a doctrine, we needed many such facts. Very many causes ought (Dr. Hodgkin said) to be taken into consideration. Deformities were not always errors of the nisus formativus, but of defects of development, as in hare-lip. Others were due to accidental injuries in utero. In a certain noble family, every member had a lock of hair of a lighter colour than the rest on the top of the head. In one case of which he had heard, a gentleman, who doubted the fidelity of his wife, was convinced of her chastity by finding that his child inherited from him a deformity of the hand.

Dr. WYNN WILLIAMS said that he had found that cleft lip and palate was attributed by nurses to the child having had its thumb in its mouth in utero. Dr. Williams referred to a case in which pressure had caused enlargement of an opening in the palate. The patient had a hole in his palate which prevented his speaking plainly. A cork was fitted in, but it was found that a larger cork was every now and then required. This case showed that mechanical pressure might cause the deformity. He wished to ask Mr. Fergusson's opinion on these points.

Mr. FERGUSSON, in answer to Dr. Wynn Williams, said that for ten or fifteen years he had made repeated inquiries as to the cause of hair-lip and cleft-palate. He had not the smallest belief in the theory mentioned by Dr. Wynn Williams. The explanations given by mothers were most fanciful. In one of the worst cases he had seen, the mother described the defect to a cat having leaped on her back during pregnancy. He mentioned also another instance. He gave these particulars to show the extreme folly of such theories. In one instance a mother believed that her child's having an extra finger was due to her (the mother) having seen a boy's finger cut off. If any effect could be produced in that way it ought rather to have been just the reverse—viz, that the child should have had three fingers, instead of five. He had put the question to one of the first histologists of the day, and the answer he received was, that hare-lip deformity was no doubt caused by the incisor teeth cutting the upper lip. Yet these teeth were not then developed. In reply to Mr. Charles Hawkins, Mr. Fergusson said that he had seen about four or five hundred cases of hare-lip, and had operated on three or four hundred. There was a tendency to hereditary transmission, but rarely was it fully developed. He had seen the defect propagated through five generations.

Mr. POLLOCK said that the arrest of development in the palate could not be due to pressure by the thumb, as the thumb was developed much later than the palate. In reference to pressure causing absorption of the palate, he agreed with Dr. Wynn Williams, and that it was therefore important not to plug holes in the palate with sponge or any other material.

Dr. GREENHOW said the author's paper was a very valuable contribution towards the subject of hereditary transmission. He said that in one case which came under his own observation, a lady give birth to a child with a double thumb, and some time afterwards her cousin gave birth to a child with the same deformity. There was, however, no other instance of this in the family. Dr. Greenhow then related an instance in which club-foot had occurred several times in one family. He said that we all knew that certain diseases were transmitted hereditarily, and he had observed that phthisis was now and then transmitted by one sex only.

Dr. LEE rose and said, that a fœtus without a head had been brought into the museum of St. George's Hospital. There was a vertebral column, a spinal cord, but no brain, no liver, and no heart, and only a small portion of intestine. The kidneys, ureters, and bladder were perfectly formed. He had felt greatly at a loss to comprehend how the circulation had been carried on in the body of the fœtus. He had examined and determined this with-

certainty. He had recommended Dr. Dickinson to send an account of this fœtus to this Society or the Royal Society; but he presumed his engagements prevented him. The mother and father could not have been without heads, and he could not conceive that the imagination of the mother could have had anything to do with the malformation. Some years ago he was called to a case of difficult labour not far from the Society. A head and arm were born, but the trunk could not be extracted, and the cause of this was not obvious. He passed up the crotchet, brought down the pelvis and lower extremities of the child, and the trunk, the other upper extremity and a second and neck were soon born. There was a trunk, two upper extremities and two lower extremities, and two perfect heads and necks. The fœtus had been preserved. He had reflected much on these and other malformations, but could not explain the cause. It was far better, he thought, to acknowledge this openly, to admit that the cause did not in the present state of our knowledge allow of any explanation, than to offer conjectures and groundless hypotheses as explanations. He believed he had seen almost every variety of malformation that the human fœtus was liable to. Brain and skull wanting and spinal cord; all the malformations in the extremities ever described; all the malformations of the jaws, genital organs, ureters, urethra, intestinal canal, &c. He believed all these commenced at a very early period—perhaps they commenced with concepti n, and in the present state of our knowledge admit of no explanation.

Dr. O'CONNOR said that the paper and the discussion had disappointed the expectations he had formed when he read the heading of the paper. The object of the author in bringing forward the paper appeared to him (Dr. O'Connor) entirely overlooked by the Fellows who had spoken. He would like to see the subject of the paper properly discussed. If diseases were transmitted, why should not the configuration of the body? The author had not stated the age of the patients. It seemed to him (Dr. O'Connor) that the deformity was that of chronic rheumatic arthritis, described by Professor Smith and Dr. Adams, of Dublin, well known to occur in certain blood diseases. The observations of the speakers did not bear on the subject; many things mentioned did not bear on it in any way. He (Dr. O'Connor) thought that, in the instances adduced by the author, the transmission was not one of deformity, but of a tendency to blood disease, which formed it.

Mr. WILLIAM ADAMS said that he had seen a large number of cases of deformities, but had not arrived at any general conclusion as to their origin. He had no hesitation in saying that there was frequently a tendency to transmission. In perhaps three-fourths of the cases of club-foot he could trace no hereditary tendency, and yet in a fourth he could do so. In one family there was a tendency to malformation of the arm. The defect was transmitted by the father's side. It became worse and worse, and at last the hand was almost close to the shoulder-joint.

SHORT NOTICES OF A CASE OF THE CÆSAREAN OPERATION, AND OF AN UNUSUAL TRANSPOSITION OF THE THORACIC AND ABDOMINAL VISCERA, SEEN AT THE CLINICAL HOSPITAL OF MOSCOW.

BY DR. WEBSTER, F.R.S.

During an excursion in Russia last autumn, chiefly to visit its public institutions, the author learned that the Cæsarean operation had been recently performed in the Clinical Hospital attached to the University of Moscow. In this case the mother did not survive, but her child lived, and, when seen by Dr. Webster in September, was upwards of two months old and enjoying good health.

An interesting preparation was then described, lately obtained while examining the body of a female aged twenty-two years, who died in the same hospital. The heart lay in the right thoracic region, the liver being in the left hypochondrium, with the stomach and spleen pushed towards the situation commonly occupied by the liver and its lobes. Dr. Webster next alluded to four analogous transpositions of important organs, both abdominal and thoracic, which now exist in different anatomical collections in London,—namely, at the Museum of the College of Surgeons, Guy's Hospital, University College, and St. Thomas's Hospital. The fact that examples of this description were limited to the few above specified, the author considered as proving the great rarity of similar abnormal malpositions of viscera in the human frame, at least throughout the immense metropolitan population, ever since medical schools were established in the capital; for had such specimens been often found on dissection, they would have been preserved. Dr. Webster referred to several medical writers, both British and continental, who narrate instances of the same kind as that he had lately met with at Moscow. Among the foreign authors on this subject, Méry, Bartholin, Riolan, and Hoffman specially deserved notice. Dr. Lampron and Dr. Baillie were also named, both these English physicians having published cases in the "Philosophical Transactions." Reference was likewise made to a paper by Dr. Bryan in the "Transactions of the Dublin College of Physicians" for 1824, which details an instance identical in its chief features to those previously quoted. Reviewing the different cases mentioned, the author, in conclusion, remarked that it might be fairly assumed, not only that persons so constituted might live for years, but that malpositions of viscera resembling those described in his communication would seldom affect materially the healthy performance of their respective natural functions.

Dr. LEE said that during the two years he was physician to Prince Woronzow he had visited St. Petersburg and Moscow and all the western and southern provinces of the Russian empire, and that he had not heard of the Cæsarean operation having ever been performed in Russia. He had seen inverted uterus, puerperal convulsions, puerperal peritonitis, and he had tapped a lady with an ovarian cyst, who lived upwards of twenty years after without ever being tapped again. It was stated by Dr. Denman, on the authority of Bauher, that Eliza Lespacher had the operation performed upon her by her husband, who was a gelder of cattle at Siegenhausen, in the beginning of the sixteenth century. She had several children born after in the natural way. Guillemeau performed the Cæsarean section twice in the presence of Ambrose Paré and some of the most distinguished surgeons of Paris. Both the women died. Guillemeau stated that in 1609 he saw the operation performed on three other women in the most dextrous manner, and they all died. In consequence of these disastrous results the operation was abandoned by Ambrose Paré, Guillemeau, and all the regular surgeons of Paris. Mauricean affirmed that there were very few, if any, cases of difficult labour in which an experienced accoucheur would fail to extract the child, dead or alive, without the Cæsarean section. Mauricean thought the Cæsarean operation could not be performed on the living body without a too great excess of inhumanity, cruelty, and barbarity—"Que par un très grand excès d'inhumanité, de cruauté, et de barbarie." Soon after or before the death of Mauricean the doctors of the Sorbonne decided that the Cæsarean operation ought to be performed whenever it was known that the child was living and it was impossible by other means to extract it alive, "for they assert that it is a deadly sin (péché mortel) to perforate the head of a living child within the uterus." This doctrine had prevailed, he believed, ever since in all the Catholic countries of Europe—France, Italy, Spain, and Germany. The recent operation in Russia had probably been performed by German or French surgeons. It was impossible to tell how often this horrible operation had been performed, as the statistical statements were unworthy of the slightest credit. It was notorious that many fatal cases had occurred of which no report had ever been published. He believed the operation had never in any instance been required; that the 400 or 500 women who had undergone the operation had been deprived of life without any reason. He had seen as many cases of difficult labour from the highest degree of distortion as any individual then alive, and he had never seen a woman die undelivered from this cause. Dr Denman had never seen the operation performed, and few of the eminent accoucheurs who followed him ever performed it or saw it performed. J. Hunter had performed it once, but he knew nothing of midwifery. Dr. Collen had informed Dr. Lee that he had never required to perform the operation, and had never seen a woman with distortion die undelivered. In a note which he (Dr. Lee) had received two days ago from Dr. M'Clintock, that gentleman stated that he had never performed the operation. It had recently been proposed to abolish the operation of craniotomy, and substitute in its place the operation of turning and the long forceps. He (Dr. Lee) would now propose that the Cæsarean operation should be banished altogether from the practice of midwifery, and that the induction of premature labour should be substituted in its place.

Mr. PARTRIDGE said a specimen of a similar transposition of the viscera was in King's College Museum.

Mr. SPENCER WELLS hoped that the attention of the Society would not be diverted by Dr. Webster's second communication from the interesting case of Cæsarean section, recorded in the first. This successful case—another which Professor Pirrie, of Aberdeen, had recently seen in the great Hospital at Naples—and a third case, which had been so successful in London, in the practice of a gentleman then present (Dr. Edmunds), would,

it was to be hoped, draw forth some practical observations as to the details of the operation. Probably some considerable share of the mortality might depend upon the manner in which each step of the operation was performed, and upon the after-treatment; and it was quite probable that, by attention to circumstances which might appear trivial at first, the operation might become much more successful than it had been.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 18TH, 1862.

DR. COPLAND, PRESIDENT.

CASE OF EMBOLISM.

DR. WILKS related the particulars of a case of gangrene of the leg and disease of the heart, which occurred in a man aged thirty-two, who died under his care in Guy's Hospital. He had been under the care of Mr. Bishopp, of South Lambeth, for several months previously, having consulted that gentleman on March 25th for a painful deep-seated swelling near the right elbow. This remained for three weeks, when it disappeared. On June 5th, pain and swelling occurred near the left knee-joint; this prevented him walking for some time, but towards the end of the month he was tolerably well again. On July 21st he was again seized with pain in the right leg, which also became numb and weak. It was then found that the femoral and tibial arteries were impervious; the limb was cold, and ulcers appeared on it. He was then sent to the hospital, when gangrene took place in the leg. The case was considered to be one of embolism. On post-mortem examination the aortic valves were found much diseased, and covered with vegetations. The right femoral artery and profunda were filled with coagulum, in the midst of which, at the junction of these two vessels, was a portion of fibrin of a different character from the rest, and which was thought to have been carried from the heart.

Dr. Wilks thought that the condition under which the patient had been suffering for some months was due to the circulation of fibrin in the system, and thus was closely associated with the more defined attacks, which were probably owing to the deposition of larger portions of fibrin in the arteries. He believed that the two conditions differed only in degree; and that just as in pyæmia, or pollution of the venous blood by purulent matter, two theories exist as to its contamination—the one, that it is spontaneous; and the other, that it is due to infection from without,—so, in that condition of the arterial blood where free fibrin is supposed to be circulating, one theory supposes that the change is in the blood itself, whilst another suggests that it arises from infection in the centre of the circulation. As regards both the venous and arterial affections, although many believe that the changes are spontaneous, the reasons are stronger in favour of infection, from the surface of the body in the one case, and (though not so strong) in favour of always arising from the heart or larger arteries in the latter. As in pyæmia death may be due to constitutional disturbance from the diseased blood or to the implication of some particular organ, so in the arterial affection the symptoms and death may be due to the constitutional affection or to the local disease caused by plugging an important bloodvessel. In the cases where no particular organ is involved the capillaries may be blocked, and the constitutional symptoms are somewhat those of pyæmia—swelling of joints, &c. Dr. Wilks thought the two affections should not be separated.

Dr. COPLAND illustrated the subject by quoting a case bearing on it from his own experience.

Mr. H. LEE related another case.

Dr. HARLEY wished to know whether Dr. Wilks regarded the case of concretion in the viscera as due to embolism.

Dr. Leared, Dr. Hare, and Dr. Murchison discussed the question at some length.

Dr. WILKS replied that he brought forward the case as an example of the identity of the two affections, as they both therein existed. The obstruction of the larger vessel and the consequent gangrene, and also the fibrinous plugging of the capillaries of the viscera and the general constitutional disturbance, he thought, were but degrees of the same thing.

Dr. WILKS also exhibited a specimen of

CIRRHOSIS IN A CHILD.

This specimen of extreme form of cirrhosis came from a boy eleven years old. He had been ailing for two years and a half, and died at last of peritonitis. Mr. Roper, of Shoreditch, who attended him, made a post-mortem examination, and found the liver covered with a number of nodules like tumours. These on examination were found to be formed in the usual manner by contraction of the hepatic lobules, whilst the dense structure between consisted, not only of atrophied tissue, but of a quantity of adventitious fibrous product. The interest of the case lies in the age of the patient, and in the cause of the disease. In the adult by far the most usual cause for cirrhosis is the use of alcohol, and thus the case of a child with this disease must be regarded with unusual interest; for if the patient have lived after the manner of childhood, it is quite evident that causes other than intemperance may produce the disease; whilst, on the other hand, if in these exceptional cases it should be found that the child had lived exceptionally, it would go far to establish a rule in favour of alcohol being all but a universal cause. In the present case, unfortunately, the facts were not sufficient to form a conclusion. The lad came from the lowest grades of society, and had been accustomed to take occasionally a little gin-and-water with his father.

Mr. WM. ADAMS was inclined to doubt spirit-drinking as a cause of marked cirrhosis.

Dr. GIBB exhibited drawings of

POLYPOID GROWTHS REMOVED FROM WITHIN THE LARYNX

of a gentleman aged thirty-seven, who had been subject to hoarseness and varying loss of voice for more than twelve years, supervening upon an attack of yellow fever in the West Indies. He was treated for this by mercury, was profusely salivated, and recovered with permanent hoarseness. In the open air he spoke only in a whisper; in-doors the voice was stronger, and possessed a rough laryngeal sound. He had been under every variety of treatment for many years without any benefit, as the true nature of his malady was never made out until examined with the laryngoscope by Dr. Gibb, who found two pedunculated tumours attached to the anterior part of the vocal cords, nearly as large as peas. They were successfully removed, with good results, by the aid of the laryngeal mirror, and were found to be epithelial in character. The *laryngeal écraseur* devised by Dr. Gibb, and manufactured for him by Messrs. Weiss and Sons, in the Strand, was found admirably to answer its desired purpose.

Dr. GIBB also showed a specimen of

ULCERATION OF THE MEMBRANE COVERING THE TURBINATED BONES, THE CAUSE OF EPISTAXIS FOR THIRTEEN YEARS,

in a delicate-looking girl, aged seventeen. She had had pertussis, rubeola, and scarlatina when four years old. After the last disease she became subject to epistaxis, which remained persistent, occurring daily from both nostrils, but more from the left. The catamenia commenced seven months ago. Rhinoscopy was difficult on account of the contraction of the velum palati from the scarlatinal angina, no doubt attended with ulceration, as cicatrices were seen here and there; yet it was performed, and showed very red and vascular ulcers on the posterior surfaces of both inferior turbinated bones, which gave rise to the bleeding which had blanched the patient. Topical treatment and attention to the general health were the measures relied upon to bring about a cure.

Dr. WILKS exhibited at a former meeting of the Society a specimen of

OVARIAN CYST,

from the museum of Guy's Hospital, in which structures similar to those of the specimen shown by Mr. Spencer Wells at the last meeting had been noticed by Dr. J. Braxton Hicks a year and a half since, who had then pointed it out to some of those interested in the subject at that institution. The drawings then shown were made at that time. These observations were to have been brought out in this year's "Guy's Hospital Reports," but interruptions occurred. The resemblance both in general form and microscopic character of this to adenocele is made still more striking by the fact that in some of the specimens fatty globules were found.

Dr. HICKS had found this condition in those forms of ovarian disease hitherto classed as "proliferous cysts," but for which Mr. Wells' name of adenoma seems the more suitable. Of the many specimens of the kind in Guy's Museum, those examined possessed this structure, some of them appearing to the naked eye like villi. Dr. Hicks considers that it is derived from the follicles of an irregularly developed skin, thereby forming one class of what are called "dermoid cysts," one of the specimens in the Hunterian Museum of this class including both this and teeth.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, NOV. 3RD, 1862.

DR. BABINGTON, PRESIDENT.

ON ANOMALOUS EXANTHEMS.

BY R. W. RICHARDSON, M.A., M.D.

DR. RICHARDSON, in commencing his paper, said that it was his wish to take the sense of the meeting on the question, "Whether it is not time for the profession to come to some decision respecting the definition of certain exanthematous eruptions which at the present moment lie out of all known and acknowledged systems of classification?" After narrating the various and serious difficulties which lie in the way of the practitioner in the determination of the contagious as distinguished from the non-contagious exanthems, the author said that they were confined to two diseases, measles and scarlet fever; and he then proceeded to describe cases in which doubts respecting the presence of these disorders were presented in a remarkable degree. Having completed this survey, he added:

And now we are brought to consider the great point before us—What is the nature of the cases to which attention has been directed? The answer resolves itself into one of the following propositions: (1) Either there is a distinct and contagious epidemic which is not isolated in our nosologies, which has its own poison and its symptoms, and with the positive identity of which the profession is not acquainted; or (2) there is a combined form of disease, of which scarlet fever and measles are the elements; or (3) there is an unrecognised form of the disease, scarlet fever; or (4) there is some known disease which assumes an anomalous character, simulating the combination of measles and scarlet fever above named; or (5) there is some unknown form of accidental disease from absorption of an organic poison with which we are not familiar, the disease being idiopathic and non-contagious.

The author next proceeded to discuss one by one these several propositions, with a view to eliminate such of them as did not answer to reasonable and fair scrutiny. After negativing the first three propositions, he dwelt at some length on the fourth, and discussed Dr. Ross's view that there is a form of urticaria which puts on symptoms that are confounded sometimes with measles, sometimes with scarlet fever, sometimes with both, and which he regards as the source of many of the doubts respecting scarlet fever. In reference to this view of the question Dr. Richardson observed, that in the cases he had named he did not think that urticaria was the misleading disease. If so, urticaria is open to a definition so wide under the term species that our formula must be revised in regard to it. If that is urticaria which is unattended with wheals and with itching of the skin, but which is attended with sore-throat and ulceration, universal redness of the skin, and which sometimes terminates fatally, surely the old reading of urticaria must be replaced by one more distinctive in form and more extensible in symptom. Dr. Richardson next discussed the last issue: Is there some distinct disease, arising from organic poison, which is not yet recognised, and which is the source of all our difficulties? He believes that there is, and he is of opinion that it has the following distinctive forms:—

It is an eruptive disorder, in which the skin and mucous membrane of the stomach and alimentary canal mainly, and perhaps exclusively, share.

The disease has its origin in the alimentary tract, and is either primarily or secondarily connected with derangement of the nerves of organic life.

The surface eruption, both on the skin and mucous membrane, is due to a loss of the controlling influence of nerve over bloodvessel.

The disease is not contagious (the poison being fixed in character) except by direct inoculation.

The disorder shows no tendency to produce disease of the kidney, or uræmia.

Unlike scarlet fever and measles, it is variable in its course: it may terminate at once, and favourably, by active purging or vomiting, by which means offending matters are thrown out of the canal; or it may continue till it terminates in death.

It is probably most common in persons predisposed to rheumatism.

The prime seat of the disorder seems to be in the alimentary canal. In the irregular digestion of some particular forms of food, some product, probably of the character of a non-volatile acid, is yielded, and, being absorbed from the canal into the blood, is the poison on which the symptoms depend.

From the disease not being contagious, and from the fact that it arises in the body from malassimilation, it might be very appropriately named "Idiopathic Rosalia."

Dr. Ross remarked that he had himself, many years ago, recognised the peculiar form of disease described by Dr. Richardson, and had called professional attention to it. He looked upon it as a species of urticaria, to which opinion Dr. Richardson objected. He (Dr. Ross) admitted that in ordinary acute urticaria the heat and itching were intense, symptoms which were not observable in the affection under consideration; yet he thought that there was an alliance between the two diseases. This particular form of exanthem was generally mistaken for scarlatina, sometimes for measles. It was characterized by a diffuse scarlet rash associated with red fauces, as in scarlet fever, but without enlargement of the tonsils. The elongated papillæ of the tongue characteristic of scarlet fever he had not noticed in this affection, though the surface of the tongue would occasionally become smooth and red. In about two days the scarlet rash would change colour, becoming crimson; and then it was that the practitioner, fancying he had made a mistake in diagnosis, would conclude the case to be one of measles,—an opinion which would be strengthened by observing, on a closer examination, that the diffused rash was in large patches, and that the circumference of the patch was mottled and concentric. The eyes would be watery. In some of these cases he had noticed that towards the circumference of the patch there was a small white spot—one or two; while in other cases, and in other patches on the same child, these spots did not exist. These papules had a marked resemblance to urticaria, hence he was induced to call the disease by that name. This disease was by no means uncommon, and occasionally prevailed epidemically like scarlet fever or measles, and was almost invariably mistaken for one or other of them. It was owing to the non-recognition of this affection that there were so many reputed cases of secondary attacks of scarlatina and measles. It was not severe, according to his experience; and the eruption rarely lasted more than four days. He had never met with a case running so grave and fatal a course as one described by Dr. Richardson, and considered that the unfortunate ending of the case referred to must have been owing to complications.

Mr. RADCLIFFE directed attention to the fact that Dr. Copland had described under the head "Rubeola" an anomalous exanthematous affection, similar in many respects to the majority of the cases detailed by Dr. Richardson, and which he (Dr. Copland) considered to be a hybrid, combining many of the chief characteristics of scarlet fever and measles. The most extraordinary and the gravest case related by Dr. Richardson he (Mr. Radcliffe) had seen in conjunction with him, but he had looked upon the case at the time, and still regarded it, as an instance of anomalous scarlet fever, the anomalousness arising from irregularity of the circulation dependent upon cardiac disease. The most singular feature of the case was, that the eruption, which had appeared early, and was pretty equally diffused over the body and limbs, was interrupted by large, and late in the disease irregular, patches of seemingly healthy skin. The edges of the patches were singularly well defined. At times the circulation in the extremities was so imperfect that they became cold and shrivelled as in the extreme collapse of cholera, the patches upon the limbs assuming a livid aspect. One of the patches sloughed. Dr. Mason Good has stated that occasionally the eruption of scarlet fever is broken by patches of the character described. Assuming that there was a distinct and hitherto unrecognised disease such as Dr. Richardson described, he (Mr. Radcliffe) objected to the term Rosalia being applied to it, this term having already been made use of by Dr. Mason Good as the synonym of scarlet fever, and being recognised as a synonym of that disease.

Dr. CAMPS objected to the phraseology of Dr. Richardson's argument, particularly his use of the words "identity" and "analogy," and also demurred to the conclusion.

Dr. J. EDMUNDS said that during the last few weeks he had seen no less than three children in which, on the first day, a full and universally diffused lobster rash had led him unhesitatingly to pronounce the cases to be scarlet fever; yet, a day or two later, unmistakable catarrhal accompaniments developed themselves, and the rash became so dark, patchy, and altogether so characteristic of measles, that he had been under the necessity of explaining away the discrepancy to the minds of the family by designating the cases mixed ones. His experience did not enable him to follow Dr. Ross in comprising scarlatinoid eruptions with urticaria. Certain febrile conditions, attended by a scarlatinoid blush, and sometimes also by mild sore-throat, were difficult to be distinguished from scarlet fever; and he

had been accustomed to treat them with the precautions due to the more serious disease. He believed that these conditions resulted from the infection of organic matters, and were precisely analogous to fish-poisoning. Dr. Richardson proposed the name Rosalia idiopathica to designate cases of this class. He (Dr. Edmunds) thought that Septic Toxhæmia would be a preferable term. The receding eruption of scarlet fever he had often seen to present a mottled appearance. He would take the opportunity of pointing out a fact that he was not aware had been previously noted—to wit, that epidemics of scarlet fever were peculiarly frequent and fatal in newly-built houses. He was unable to conjecture the cause, but the fact was interesting in its bearing upon the relations between scarlet fever and rheumatism, and upon the theory which Dr. Richardson had propounded—viz., that scarlet fever depended upon the formation in the blood of an organic acid analogous to the lithic, which acid poisoned the sympathetic system. The analogy was further borne out by the fact that an unusual prevalence of rheumatoid disease of the limbs attended these cases of scarlet fever.

Dr. RICHARDSON having replied, the meeting adjourned.

DR. RADCLIFFE'S LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE second and third lectures of this series were delivered in the course of the week.

In the second lecture, Dr. Radcliffe discussed the electrical condition of living muscle and motor nerve during muscular contraction, and he enunciated and illustrated the following propositions:

1. That in rigor mortis all signs of electricity have disappeared from muscle and motor nerve.

2. That in ordinary muscular contraction the signs of electricity, which previously existed in the muscle and motor nerve, are greatly diminished.

3. That in ordinary muscular contraction the contracting muscle, and the nerve belonging to it, are traversed and surrounded by an instantaneous current of high-tension electricity analogous to the discharge of the torpedo.

Dr. Radcliffe detailed at considerable length the chief experimental proofs upon which these propositions rest, and which lead to the conclusion that, in the divers conditions referred to, muscle and motor nerve are obedient to the same law. Further, he pointed out that certain contradictory statements of MM. Matteucci and Du Bois-Reymond (to whose researches in respect of the questions under consideration physiological science had been so largely indebted) concerning the electrical condition of muscle during contraction, admitted of reconsideration. He showed, in fact, that the researches of each of these physiologists were needed in order rightly to appreciate the full significance of the researches of the other. Thus that weakening of the muscular and nerve currents, during contraction, which had been demonstrated by M. Du Bois-Reymond, led of necessity to the development, during contraction, of the instantaneous current of high tension which M. Matteucci had proved to occur. An electrical current—active electricity—cannot exist without giving rise, in and around the circuit of action, to instantaneous currents of high-tension electricity. This was a law of electricity, and the currents so excited had been designated by Faraday extra or induced currents. The application of this law, Dr. Radcliffe showed, at once and completely solved the apparently irreconcileable experimental results referred to obtained by Matteucci and Du Bois-Reymond, and threw a flood of light upon one of the most intricate and perplexing questions in physiology. The fertile results to be derived from the application of this law were most interestingly illustrated by a reference to the electrical action of the torpedo. The discharge of this animal is probably nothing more than the instantaneous current of high-tension electricity which follows the action of the nerves of the electrical organ. To this conclusion, at least, Dr. Radcliffe's researches tend.

In the third lecture Dr. Radcliffe discussed the very intricate problem of the action of artificial electricity in muscular motion. The following propositions were advanced:—

1. That instantaneous currents of high-tension electricity are necessary to produce contraction, and that continuous currents of low-tension electricity have not this power.

2. That the natural electricity of living muscle and motor nerve is weakened by that action of these instantaneous currents of high tension which produces contraction; and that the amount of contraction is directly proportionate to the degree of this weakening.

3. That the remote action of a *direct* or centrifugal voltaic current upon a motor nerve is one which destroys rapidly, and with equal rapidity, the electricity and the motor power of the nerve; and that the remote action of an inverse or centripetal voltaic current upon a motor nerve is one which preserves the motor power of the nerve for a long time, exalts it, and even restores it more than once after it has been destroyed by the action of the direct current, and which at the same time and in like manner preserves, exalts, or renews the electricity of the nerve.

4. That the immediate effect of a direct or centrifugal voltaic current upon a motor nerve is one which at once favours the production of contraction, and diminishes the electricity of the nerve; and that the immediate effect of an inverse or centripetal current upon a motor nerve is one which at once resists the production of contraction, and augments the electricity of the nerve.

In support of these propositions, much that was new was adduced, and experiments of MM. Ritter, Du Bois-Reymond, Eckhard, and others were freely cited. Further, the propositions themselves, if assumed, were shown to remove certain hitherto insuperable difficulties, as, for example, Nobili's "law of contractions," and the "voltaic alternatives."

Finally, it was made evident that the view advanced by Dr. Radcliffe in his first lecture—namely, that the primary electrical condition of muscle was one of statical and not of current electricity, simplified much that was complex, and afforded an important clue to the removal of many difficulties, as well pathological as physiological.

Dr. Radcliffe had not completed his argument when the period for terminating the lecture had arrived. In the next lecture he will conclude this part of his subject, and proceed to the examination of such questions as remain for consideration, before entering upon the pathological portion of his lectures, and the relation of the whole subject to practical medicine.

OPERATIONS PERFORMED IN THE ROYAL INFIRMARY OF EDINBURGH DURING NOVEMBER.

To the Editor of THE LANCET.

SIR,—The following list of operations performed in the Royal Infirmary during November just concluded, may possess some interest as giving an idea of the field for practical observation in Surgery which is afforded to the students of Edinburgh.

Under the care of Mr. SYME.—1. Excision of the whole of the scapula with a portion of the clavicle for a large tumour. 2. Lithotomy. 3. Ditto. 4. Excision of the elbow-joint for disease. 5. Ditto. 6. Removal of the testicle for a large tumour. 7. Removal of the mamma for a scirrhous tumour. 8. Removal of a fatty tumour from the breast. 9. Removal of a fibrous tumour from the palm of the hand. 10. Amputation of the foot at the ankle for disease of that joint. 11. Amputation of the penis for cancer. 12. Operation for the radical cure of hernia. 13. Removal of a large fibrous polypus from the posterior nares. Among the minor operations were—Necrosis of the tibia, epithelioma of lip, club-feet, amputation of great toe and fingers, removal of mucous polypi, removal of external hæmorrhoids, &c.

Under the care of Mr. SPENCE.—1. Lithotomy. 2. Ditto. 3. Removal of testicle for a tumour. 4. Primary amputation through the upper third of the thigh for an injury. 5. Amputation at ankle for disease of the joint. 6. Ditto, ditto. 7. Amputation through the lower third of the thigh for disease of the knee-joint. 8. Operation for strangulated femoral hernia. Among the minor operations were several cases of fistula in ano; three cases of nævi, one of which was ligatured, the other two injected with perchloride of iron; tracheotomy for croup; club-feet, &c.

Under the care of Dr. GILLESPIE.—1. Removal of a condensed fatty tumour, weighing four pounds, from the neck and back. 2. Excision of the elbow-joint for disease. 3. Primary amputation of the forearm for an injury.

Under the care of Professor MILLER.—1. Lithotomy. 2. Formation of a new nose.

In addition, the following cases have been operated on in the ophthalmic wards by Mr. Walker:—1. Extraction of cataract; 2. Ditto; 3. Staphyloma; 4. Entropion; 5. Ditto; 6. Strabismus; 7. Ditto; 8. Synechia posteria; 9. Tumour of eyelid; 10. Ditto; 11. Ditto; 12. Adhesion of eyelid to globe.

I am, Sir, your obedient servant,

Edinburgh, Dec. 1862. THOMAS ANNANDALE, M.R.C.S. Eng.

THE LANCET.

LONDON: SATURDAY, DECEMBER 6, 1862.

IN our number of last week a proposal was submitted to institute a Lancashire Distress Medical Fund which should gather together the contributions of medical practitioners, and thus, following the example of other professions, impart distinct form and more useful action to their efforts as a body. That this cannot be done effectually by mere isolated spontaneity, must, from actual experience, be sufficiently evident. Some organization is necessary. Letters from medical friends in the distressed districts come appealing to us, as brother-practitioners, to lighten the burden under which they are struggling, by enabling them to supply food and medical comforts to the poor patients, daily augmenting in number, who seek in medical skill relief from disease that springs from starvation. It is difficult to imagine anything more trying, more painful to the practitioner, than to be called upon, day after day, week after week, to go over the same weary task of attempting to cope with the manifold attendants upon destitution—to feel that his best skill is thrown away, and that the clearest indications of treatment are frustrated, because his patients want the common necessaries of life. In London, and elsewhere beyond the cotton districts, we pursue our calling in comparative personal ease, and with all the appliances for doing good to our clients. It would be a graceful act to our professional brethren in Lancashire, striving to maintain the cherished reputation of Medicine for beneficence and self-denial, bearing as they needs must—for that is our constant privilege or duty—more than their due share of personal toil and anxiety in the attempt to alleviate the misery that surrounds them, to give them that assistance which they would most prize—namely, the means of supplying food to those who look to them for help. It cannot be doubted that if medical kitchens and stores for medical comforts were established in the distressed towns, and if orders upon these were placed in the hands of the medical practitioners for distribution, a vast amount of silent suffering would be reached by the readiest and most intelligent channels. For, surely, none know so well as medical men the abodes of want, none can so clearly discern its effects, and none so entirely possess the secrets and the confidence of the wretched. If their hands were so strengthened, we should have the satisfaction of feeling that our brethren would encounter the terrible work before them with lighter hearts. The medical profession is not, indeed, a wealthy one. It contributes personal labour more largely than any other profession. It is lavish in the expenditure of valuable time. Still there are many amongst us who will not be content thus to limit their aid. In various directions, medical practitioners, in common with other members of the community, have contributed, and are contributing, help to mitigate this great calamity. But no one can read the vivid description of Lord DERBY of the state of the population in Lancashire without being convinced that far more than ordinary efforts are necessary. When we learn that a quarter of a million out of two millions of inhabitants, so early as November, were dependent for existence upon the poor-rates, we have a fact which, for the medical profession certainly, needs no comment. No spasmodic and unwonted inflation of the poor-rate can by any possibility meet distress so deep and wide. 250,000 people suddenly pauperized involve in certain ruin perhaps an equal number of persons whom their prosperity supported. It is chiefly amongst this class that the ministrations of medical men are especially grateful and useful. The destitution of an untold number of respectable shopkeepers, artisans, and others, would remain unseen and unrelieved, but for the friendly offices of the medical attendant. We are persuaded that in all parts of the old country, and in the colonies as well, there are many practitioners who will gladly avail themselves of the opportunity afforded them to give liberally material aid. Unless the most active and well-sustained exertions be made throughout every corner of the land, the calamity that now prostrates the energy, and more than threatens the health, of tens of thousands of our English community, will assuredly develop fever on a scale of which within living memory we have no example since the famine-fever of Ireland.

In a letter addressed to THE LANCET, Mr. MORLEY says:—

"The necessity for the formation of this and similar establishments throughout the stricken districts of Lancashire is being painfully felt by those medical men who are called upon to cope with diseases greatly aggravated, if not actually induced, by that state of semi-starvation to which so large a proportion of our operatives have now been reduced.....Without some such scheme, the lives of hundreds must inevitably be sacrificed."

Dr. RAYNER, of Stockport, says:—

"Out of a population of 56,000, most of whom are employed in cotton manufactures, there are upwards of 26,000 receiving relief—8000 from the Board of Guardians, and upwards of 18,000 from the various district relief committees.....To add to our present distress, some of the wards of our Infirmary have been closed, in consequence of the want of funds, many being unable to keep up their subscriptions; so that there will be a large deficit at the end of the year. *Our poor-rates amount to 7s. 6d. in the pound.* More than half will be unable to pay; so that those who are able will be doubly burthened."

When the scourge shall have been taken away, it will be time enough to discuss the question of equalizing the poor-rates by striking county or national assessments. Our first and immediate duty is, to rescue our fellow-citizens from present starvation and imminent death. The cry of the perishing must not be answered by cold maxims of political economy.

We have already had the satisfaction of forwarding £20 to Blackburn, and a like sum to Ashton-under-Lyne, to be devoted to the support of medical kitchens. We are anxious to extend similar aid to other places. The funds collected will be distributed under the direction of a Committee, which will meet weekly to receive and consider applications from the distressed districts for assistance. To enable the Committee to bear aid in a manner commensurate with the magnitude and extent of the emergency, an earnest appeal is made to every member of their common profession.

OUR able contemporary, the *Builder*, in exercising the more immediate duties of his sphere,—the supervision of the construction of public and private dwellings, and of the drainage, lighting, and water-supply of towns,—spares itself no trouble in collecting information upon general sanitary matters. In a

recent number (1034), whilst discussing the cellar-dwellings, the courts and alleys of Manchester, several topics of medical interest are touched upon, and which, based as they are upon trustworthy foundation, deserve to be recorded in these pages. On the day the Manchester Infirmary was visited, there are said to have been upwards of 1000 patients within its confines. But can this be correct? Five hundred and seventy-three medical patients, four hundred and fourteen surgical patients, and seven hundred and nine accidents were received into the house during the year. The construction and arrangement, we are told, appear very bad. It has been attempted to remedy some existing evils by increasing the ventilation through numerous openings. But it seems to be beyond ingenuity to make the Manchester Infirmary a healthy hospital. In a paper read by Mr. JOHN ROBERTON before the Manchester Statistical Society a year or so back, the author pointed out the insalubrity of the institution. He proved it by the patients who die there, and those who ought to recover and do not. He recommended the immediate erection of a new Infirmary outside the city. But the convenience of the present site, and the large number of surgical cases and accidents which are received into the hospital have hitherto caused the present one to be retained. However good extra-urban hospitals may be in theory, intra-urban ones are demanded by necessity. There can be no objection to both, but we cannot afford to lose the latter under any circumstances. In Manchester there is much sickness from rheumatism and bronchitis. The last-named disease has been attributed to the irritation caused by the sulphurous fumes from the Lancashire coal. Phthisis, as might be expected, is very prevalent. Rachitism, also, we know to be common; nor does fever play an unimportant part. Although the death-rate of Manchester has declined in proportion to the extent of the application of sanitary improvements, yet there is little doubt that, with proper drainage, the closure of cellar-dwellings, the ventilation of mills and work-rooms, and a better management of infants and children, the death-rate might yet be reduced seven or eight in the thousand. In other words, two thousand lives a year might be saved. But we fear Manchester is too fond of its dirt to part with it very readily.

We have before us a sketch of a place near the large cotton-mill of one of the parliamentary representatives of the city. From Chapel-street, Salford, leading towards the entrance of the mill, is a narrow roadway, not very well paved nor cleanly kept, and from this, in one part, leads a still more narrow passage, in which are some small houses blocked up by large buildings. In connexion with it the *Builder* inspector thus reports:—

"The dirty and neglected condition of this place is discreditable. Children were searching the dust-heap close to the nearly overflowing closet, and what surprised us much was to find a number of pigs lodged in the situations shown in the sketch. The pavement is chiefly formed of broken bricks, and the cement having decayed, it was in a very bad condition, while the smell of the pigs and other matters was so offensive that we were glad, having finished an unpleasant duty, to beat a hasty retreat."

Besides being in the vicinity of dwellings, this pestiferous spot is close to a large manufactory, where hundreds of work-people are employed, and who cannot open the windows for air without letting in the Sabæian odours from this "Araby the blest." The same authority further reports:—

"In various parts of Manchester and in the suburbs we have visited many small houses which are built in more open situations, and find that in addition to the ash-pit and closet system, which is so objectionable, there is a great want of provision of washhouses, and sufficient area for drying clothes. This, on 'washing days,' leads to muddle, confusion, and discomfort, and, what is even worse, forces the women to dry the wet linen in the rooms which are inhabited by families. The mortality, particularly of children, in some new streets has attracted notice, and to this practice some of the deaths and sickness may be attributed, for the atmosphere of Lancashire is chilly and humid. In addition to this, the formation of vapours in sleeping rooms cannot be continued without injury; and it must not be forgotten that in some instances closets have been provided for the use of each house, and in other cases one for two, three, and four houses; and although this is in one sense an advantage, it also brings the cesspool evil more immediately to a greater number of doors."

There is much yet then for our provincial sanitarians to fight against. We quite agree with our contemporary in his praises of the Manchester and Salford Sanitary Association. It is truly one of the most useful institutions in the place, and the great value of its work should suggest the necessity there is for the formation of other unions of a similar kind in the more populous towns and districts throughout the kingdom.

The sanitary condition of Wigan may come also under notice, and would seem to merit approval. Some ten years ago the local Board of Health took up the question of the public hygiene of the district, and not unnecessarily, for the sewers, where they existed, were filled with foul, putrid refuse, and the water-supply, being in the hands of a private company, was both bad in quality and defective in volume. But matters have altered. New sewers have been formed, and a new supply of water, of about 6° of hardness, has been furnished to the inhabitants. The total number of tenements which have been drained is 4516. The drainage works, moreover, answer to their pretensions, which is not always the case. It is stated to be a most unusual thing for a complaint to be lodged at the office against the working of the system, and this notwithstanding that upwards of thirty miles of drains are in operation within the borough. The water-supply has not yet been developed to its fullest resources, as sufficient time has not yet elapsed to permit of the completion of the services. It is drawn from a surface area of about 2400 statute acres, and the impounding reservoir contains nearly 135,000,000 gallons.

We learn, amongst other professional news, that an infirmary of large size is to be erected in Leeds. The whole structure will cover a site of nearly two acres and a half, being about 400 feet in length, and 260 feet in breadth. The new infirmary will consist of several distinct portions. We are rather doubtful as to the result in some respects. One of our most eminent gothic architects is entrusted with the commission. Gothic architects give us admirable churches and convents, buildings venerable in appearance, and of sleepy subdued light. But our hospitals must be cheery and redolent of as many solar rays as can be got to penetrate them. Small windows and gloomy corridors may serve the purpose of ecclesiastics and students, but not those of sick people. For an hospital, light and air are the two great essentials, and these are not the usual accompaniments of gothic buildings. We are glad to be assured, so far, that "with "respect to the wards for the patients, all their windows look "to east and west." Whilst, however, we deprecate "early English" as the hospital style, we must not be supposed to advocate what Mr. LAMAN BLANCHARD has amusingly described as that of the "early barrack" period.

Medical Annotations.

"Ne quid nimis."

THE QUESTION OF TITLES.

WHEN the Medical Act was first printed, there was a column in the Schedule relating to qualifications headed "Titles." This heading was expunged. Such difficulty surrounded the question, in its legal as well as other bearings, that the framers of the Act shrank from the task of defining the rights and privileges of practitioners in respect to the titles which they might assume. Had the "Titles" column remained in the Statute, would it have tended in any way to settle the dispute now raging so fiercely? We think not. The question is one of law and custom. The law has always been indefinite; custom has had the widest latitude. Physicians, by courtesy, by custom, which becomes law from its antiquity, have always been styled Doctors. A Doctor is defined by Webster, by Lemon, by Wright, by Sheridan, by Richardson, by Ogilvie, by Boag, by Bailey, by Ash, and, last, though not least, by Johnson, to be a Physician. The definition of a Physician by all these authorities, except Bailey and one or two others, is "one skilled in the art of healing," or "whose profession is to prescribe remedies for diseases." Bailey, whose work, so far back as 1782, had reached the twenty-fourth edition, defines a Physician to be "a Doctor or Professor of Physic." Custom, from this authority, the oldest to which we have had the opportunity of referring, is clearly in favour of the right of a Physician to style himself Doctor. Does ancient *custom*, then, render the assumption legal?—this is a question for the judges of the land to determine. Now let us look to the custom of more modern times. The Colleges of Physicians of the United Kingdom until the passing of the recent Act claimed for their Members the right to the title of Doctor. Many Members of the College of Physicians of London up to a late date possessed no University degree, and yet no one ever presumed to question their right to style themselves Doctors. Further than this, the College claimed and exercised exclusive privileges, even in regard to the practice of Physicians, within certain limits. They contended, in virtue of the powers conferred upon them by their Charter, that Doctors of Medicine of the Edinburgh and some other Universities had no legal right to practise as Physicians in London and its vicinity without previously becoming Licentiates of their corporation. They went further than this: they arbitrarily and unwisely excluded from Fellowship all Members of the College who did not possess a degree of Medicine from one of the English Universities. Hence arose, a quarter of a century ago, that formidable combination against the exclusive principle upon which the College acted, entitled the "Committee of Licentiates." The object of the committee was to overthrow that exclusive and tyrannical principle. The committee was composed of many of the most eminent Licentiates of the day—men who have left a mark upon the "sands of time." The veteran Clutterbuck, who for fifty years occupied a distinguished post amongst his brethren; Birkbeck, whose name is associated with all those proceedings which have elevated the profession in the eyes of the public; the illustrious Marshall Hall; Dr. Neil Arnott, the profound philosopher; Dr. (now Sir) James Clark, the most courtly of Court physicians; and Dr. John Webster, were some of the most prominent members of that committee. The contest was long and angry, and conducted with an acrimony seldom surpassed in such a cause. THE LANCET lent its aid to the oppressed; the result was, victory. The College authorities succumbed, and offered their Fellowship to most of the malcontents. Some of them accepted the bribe; but Clutterbuck, Clark, and Arnott, with a dignity and a consistency which reflect the highest credit upon them, rejected the doubtful boon. On them it could confer no honour. Mere titles to them had no value. They had risen above petty and adventitious distinctions to the highest post to which the public or the profession could raise them. They fought for a principle, and established it; and, with true magnanimity, sank the personal into the general issue.

Is, then, the question of titles of so much importance as many seem to imagine? Should it not rather be, that "title" should be a mark of professional distinction, than a mere adventitious "honour" obtained by the payment of money or subscription to prescribed rules? Mark! the College of Physicians of London excluded from their Fellowship, with a pertinacity worthy of an effete corporation, the Graduates of the University of Edinburgh, which for nearly a century had been the great school of Medicine of the kingdom—a University which numbered amongst its professors the Blacks, the Playfairs, the Monros, and Cullen,—but took under its especial patronage and favour the Doctors of Medicine of Oxford and Cambridge, where Physic was either not taught at all, or taught in such a manner as to make it a byeword and a jest. Titles are not necessarily honours.

"The tenth transmitter of a foolish face"

may, indeed, be titled, but not illustrious. "The peerage," said the great Lord Thurlow, when taunted with his plebeian origin by that "accident of an accident," the Duke of Grafton—"sought me, not I the peerage." To the Duke, the title was everything; to the great Lord Chancellor it was nothing. "I thought," said Dr. Johnson, "before I saw Lord Chesterfield, that he was a lord amongst wits; but I found that he was only a wit amongst lords." "Soldier!" said a judge to a red-coated subaltern who had to give evidence in a cause, "what have you to say in the matter before me?" "Soldier!" rejoined the witness, whose dignity appeared to be insulted by the epithet: "Officer, my lord, if you please." "Well, then; officer, and no soldier, step into the witness-box." We commend these facts to the serious consideration of those gentlemen who are such sticklers for mere titles: they are pregnant with meaning. The republic of Medicine requires something in its members besides the mere possession of a title, to place them in a prominent position before the world. The advocates of exclusive privileges with respect to titles are not to be found amongst the men who have shed honour and lustre upon their profession. The distinctions founded on the right to assume empty titles are chiefly fought for by those who rely more upon the titles they may assume, than upon their own personal and legitimate claims to distinction. The enactment of laws in this respect will not tend to a solution of the difficulty. So long as we have Doctors of Medicine keeping open shops for the sale of cosmetics and tooth-brushes, and whilst the plain "Mr." practises his profession as a "noble science" and not as a low trade, the public will set the question of titles at defiance. Legislative enactments come to nought when opposed to public opinion. It is well in this free country that it should be so. There is one remedy, and only one, which we can suggest: the "one-faculty system" is the panacea. Let all men start equal; let the foremost in the race, as they will do, attain the posts of honour; and the question of titles will be solved in the only way with which either the profession or the public will be satisfied.

INCREASED MORTALITY IN LONDON.

WE call the attention of our readers to the last Weekly Return of the Registrar-General, by which it appears that the number of deaths was no less than 1745 for the week ending Saturday, November 29th: being 438 more than for the first week of that month. This is considerably greater than in any corresponding week of the last ten years, except that of the year 1858, when the number that occurred in a less population was 1738. This increase is in part due to deaths from diseases of the respiratory organs, 470 persons during the past week having died from that class of diseases, and particularly from

bronchitis and pneumonia; it is satisfactory, however, to learn that nearly half of the deaths from bronchitis occurred at sixty years of age and upwards.

It is scarcely possible to over-estimate the practical importance of these returns. It is not, however, everyone who reads them; many persons turn away, as from a task, from the perusal of documents like these, abounding in figures, so that we fear they are not productive of half the good which they ought, and which we believe they might be made, to accomplish. We have our "storm signals:" why not our "health warnings?" We would suggest that from each weekly return a short, plain, and precautionary paragraph should be framed, and that steps should be taken by the Registrar-General to have it widely circulated and made known. Thus, without entering into figures at all, if the simple fact revealed by the last return were brought under the eyes of the multitude, that deaths from bronchitis and pneumonia were greatly on the increase, people would, by warm clothing and the avoidance of exposure, take greater care of themselves, and as a consequence the death-rates might be considerably reduced.

HOLLOWAY IN FRANCE.

THE redoubted professor whose pills and ointments have so long flourished in this kingdom and its colonies—the pet example of advertising agents of the kind and degree of success which unlimited puffing and vast expenditure in advertising will effect—has received something of a check to the spread of his wares, which he has so often boasted are to be found in every climate and among every tribe.

The great element of success in pushing such nostrums, next to vast impudence and liberal expenditure of capital in advertising, is secrecy. The element of mystery is indispensable to the purposes of the vendor; how else could the stuff be vaunted as indiscriminately a cure for ulcers, diphtheria, scrofula, cancer, and whatever other ailments might afflict any poor soul with a few shillings in his pocket? When, therefore, a person named Sillen, described as "a Swedish physician," recently undertook for a pecuniary consideration the introduction of Holloway's pills and ointment into France and the French colonies, and he found that among other obstacles in the way of the attainment of his object an analysis must be laid before the proper authorities, some of the best—that is, most profitable—interests of the vendors of the ointment were jeopardized. It appears, however, from an action tried this week in the Court of Common Pleas, that the analysis was made, and the ingredients found to be lard, butter, turpentine, white wax, and yellow wax. Eventually a patent was, as the plaintiff said, by extraordinary exertions on his part, obtained for the ointment, under the title "Pommade dite Holloway"; but the defendant refused to pay the £500, and Dr. Sillen brought an action. It may well be conceived that Mr. Holloway would rather pay a large sum for the suppression than for the publication of an analysis of his ointment, describing it to consist of lard, butter, turpentine, white wax, and yellow wax. And on the present occasion Mr. Holloway was called, and he stated that his ointment contained three only of the ingredients mentioned in the analysis, but other vegetable matters not mentioned. He further said, in answer to questions put by Mr. Brandt, that he was not a chemist, and could not analyze his own ointment; he believed it was possible to analyze it, but very difficult. Certainly Mr. Holloway may be anything but well pleased with the account which his agent has given of the ointment, in endeavouring to take out a patent for it; but it must also be observed that his own account is likely to be but little more satisfactory to his clients; and, on the whole, those interested in the progress of reason and the suppression of secret remedies will have some cause to feel satisfied at even this partial illumination of the mysteries by which it has been sought to invest this ointment with factitious value in the eyes of the ignorant. Would that every vendor of a patent preparation were obliged to deposit his analysis and description in a public office here as in France!

ABORTION AND ITS PROCURERS.

THE recent case of abortion, in which Maria Ellworthy lost her life through attempts to procure premature delivery, ought not to pass off so quietly as it seems likely to do. We will recall some of the facts as they appeared in evidence at the coroner's inquest. The deceased woman was seen before her death by Mr. Humpage, a surgeon, who found that she had been prematurely confined of a six months' fœtus, and was suffering from wounds produced by blunt instruments used in bringing on premature labour.

Dr. Harris, of 33, Great Windmill-street, stated that the deceased had a short time previously called at his house, and said that she had been "examined" by a Mr. Scott, of 7, Adam-street, Adelphi, and asked him to recommend her a nurse. Dr. Harris said he believed that the deceased was suffering from the injuries spoken of by the previous medical witness when she called on him. Mr. Scott, having been sworn and examined, stated (according to the report in the *Morning Star*) that he had no diploma or licence to practise; that he advertised to give advice "in midwifery, pregnancy, and other female irregularities!" He did nothing to commit himself. He was never criminally prosecuted. Hereupon Inspector Peirce deposed on oath that on making inquiries respecting Mr. Scott, he ascertained that eight years ago he had been tried and convicted for a criminal assault on a woman, and administering to her a drug, when she called on him to procure abortion. He had been convicted under the name of Hamilton.

The jury found that the woman had died from injuries inflicted in the attempt to procure abortion. Mr. Scott escaped with a censure from the jury for practising without any diploma or licence; but they desired to express their severe condemnation of the manner in which he had perjured himself by swearing that he had never been subjected to a prosecution when he had actually been tried and convicted, and the jury considered that it would be most improper if such an act of perjury were to be allowed to pass without formal and public censure.

The proceedings then terminated. But is the case to end here? Is not perjury an offence in the eye of the law deserving of something more than severe censure? and is there anything in the antecedents of such a fellow as this which should screen him from the infliction of the fullest penalty of the law? The tribe of miscreants who profit by the felonious traffic in "female irregularities" are stained with the darkest hue of criminality; and of all the mysteries of this modern Babylon, there is none that requires more than this secret trade the searching intervention of justice.

FACULTY OF MEDICINE, CATHOLIC UNIVERSITY, DUBLIN.

IN the course of a recent address delivered at the University School of Medicine, Cecilia-street, by Dr. Quinlan, Dean of the Faculty, reference was made to the progress of the School, which has as yet only reached its eighth session. The School began with 36 pupils; the number then increased to 46; in the following session it was 69; then 88; and the School now numbers 104 anatomical students. We see with pleasure that Dr. Quinlan publicly recognises the fact that the students o that School have, with reference to admission into the public services or the obtaining of their diplomas, exactly the same advantages as if they were students in the Medical School of Trinity College, of the Royal College of Surgeons, or of any other such institution. Dr. Quinlan refers to the fact that, in common with many other Catholics, he received his academical education in the halls of the University of Dublin, and that he

has carried from those halls the most grateful recollection of the kindness and courtesy which he there experienced. There is no spectacle more agreeable, or more accordant with the interests of science and humanity, than the cordial co-operation of members of all forms of religious persuasion in the common work of mercy and utility in which the medical profession is engaged. There is no employment more hateful than the effort to introduce theological differences into the paths of professional activity; fortunately, there is not any which is at this day more distasteful to the profession, or more certain to bring on one who resorts to it the scorn and contempt of his fellows.

THE CASE OF SAMUEL GARDNER.

"LAW is not justice" is an aphorism, the truth of which has seldom been more forcibly exemplified than in the case of Samuel Gardner, the sweep, lately tried and condemned at the Central Criminal Court for the murder of his wife. As a respite was granted before the hangman had time to prepare the noose wherewith to launch the supposed culprit into eternity, we should not have considered it necessary to notice the trippings of the Law had it not been that she has, with her usual kindness, and with somewhat more than her usual justice, laid the entire blame on her sister, Medicine. As in Smethurst's case, the prisoner is respited, we are told, because the medical testimony is not complete in proving either the culpability or innocence of the prisoner. This assertion naturally leads us to the conclusion, that the whole case for the prosecution rested entirely on medical testimony. Such a statement, however, can scarcely be said to be strictly true, although, as will immediately be made evident, a great deal too much importance appears to have been attached to a somewhat dogmatic assertion made by one of the medical witnesses.

The history of the case is briefly this. A weak-minded woman, the wife of an adulterous husband, the mistress of an abandoned servant, is one morning found dead at her bedside, with a knife in her hand, and a gash in her throat two inches and a quarter in length. There is a pool of blood on each side of the throat, but no blood below the collar-bone, showing that the incision must have been made when the body was in a reclining position, which fact would have been almost of itself sufficient to negative the idea of suicide, had there not been abundance of others to do so. The idea of suicide being dismissed, next comes the question, Who is the murderer? The Coroner's jury returned a verdict of "Wilful murder against Elizabeth Humbler," the deceased's servant, the husband's concubine; and the grand jury endorsed the decision. At the trial at the Central Criminal Court, however, all is reversed. The servant is put into the witness-box; the husband placed at the bar. And why? Because the surgeon who examined the body declares that it must have been dead four hours before eight o'clock A.M., and the husband is known to have left the house about that time on the morning when the murder was committed.

In order that our readers may fully appreciate the value of the medical evidence, we shall give it exactly as it is reported in *The Times* of the 31st October:—

Mr. Sequeira, surgeon, practising in Jewry-street, said—"The head of the deceased was close against the door-post, and the feet were lying perfectly straight and parallel with the bed, and she had nothing on but a flannel vest and a chemise. I placed my hand on one of the thighs, and found that it was quite cold. The shoulders and upper part of the body were also quite cold, but the lower part of the abdomen was warm; and in my opinion she had been dead about four hours."

Had it not been for this "four hours," there was almost no evidence to connect the prisoner with the crime. He leaves the house at the usual early hour of four o'clock to follow his employment of chimney-sweep; he meets his friends and converses with them as was his wont; he goes his rounds, and does his work without agitation or flurry; and he returns to his home at the ordinary breakfast hour. There is nothing in his demeanour to indicate guilt; nothing on his costume to lead to the supposition of crime. Yet it is to be observed that the murdered woman had evidently struggled hard for her life; for her hands were in some places cut to the bone, as if she had made violent efforts to seize the knife. Moreover it is scarcely to be conceived that a death-struggle of this kind could have occurred without noise; and if there had been noise the woman Humbler, who slept in a room above, must have heard it. The only noise heard, however, was at six o'clock, when a policeman heard screams proceeding from the house; but at this time Gardner was occupied in sweeping chimneys at a distant part of the town. Then, again, no motive can be traced that might have induced the prisoner to murder his wife. On the contrary, the very night before, he and she seem to have made up their minds to live more happily together for the future, and to turn away the only source of quarrel—the woman Humbler: a woman who, it appears in the evidence, had sacrificed her own husband, six weeks after marriage, to come and live in concubinage with Gardner, for whom she seems to have had a romantic attachment.

Now for a word regarding the guess that the body had been dead four hours; we use the word "guess" advisedly, for it was little else than a guess, as there exist no exact data upon which to found such an opinion. In the first place, we all know that the cooling of a body depends on the circumstances under which it is placed. The limbs of a corpse may become cold in a few hours, or not for a couple of days, according to the temperature to which they are exposed. Secondly, the extremities in certain cases may become cold even before death. We know that even in diseases such as cholera, or in death from poisoning by hydrocyanic acid when given in small doses, not only the extremities but even the trunk of the body feels cold almost as soon as life is extinct. Thirdly and lastly, we know that in death from hæmorrhage the cooling of the body is greatly accelerated. If we now turn to the case under consideration, we shall find that there are many circumstances connected with it which lead to the conclusion that two hours would have been ample time to allow of its becoming cooled down to the state described by the surgeon: 1st, we have death by hæmorrhage; 2nd, the corpse is but very slightly covered; 3rd, it is found lying on the cold floor near to a door, under which no doubt a tolerably strong current of air entered; and, 4th, all this occurs not only in early morning, but during a cold season of the year.

Since writing the above, Sir George Grey has thought fit to commute Gardner's sentence into *penal servitude for life*. But still we ask, Is this a righteous sentence? The man is either guilty or *not guilty*. If the former, he deserves hanging; if the latter, we hold that it is the duty of the Home Secretary at once to grant him an unconditional pardon. This case shows the urgent necessity of a Court of Criminal Appeal. We have still one word to add in conclusion, and that is, that if the medical evidence was, as one of the daily papers stated, "the back-bone of the case," the surgeon ought to have consulted some medical jurist before imperilling the life of a human being on the imperfect data he had at his disposal.

NATIONAL DENTAL HOSPITAL.—The first annual meeting of this useful charity was held in the committee-room of the institution on Monday evening last; Dr. Richardson in the chair. The treasurer's report showed that the funds of the institution were in a satisfactory state, and had enabled the committee to meet the heavy expenses attending its first establishment. Two thousand patients had attended at the hospital during the year, the majority of whom could not have received the kind of treatment which their cases required but for the existence of such an institution. The committee referred to the great loss they had sustained in the death of the founder, the late Mr. James Robinson, and trusted that the subscribers would continue their exertions to secure the permanent success of the hospital.

DESCRIPTIONS
OF
NEW REMEDIES
INTRODUCED INTO THE PRACTICE OF MEDICINE,
WITH THEIR THERAPEUTICAL EFFECTS.

No. X.

VERBASCUM THAPSUS (MULLEIN).

THIS common, well-known and widely-diffused plant has hitherto been regarded as having very little remedial value. Such dispensatories as have admitted it have spoken only of its demulcent and emollient properties, adding, that it is thought to be slightly anodyne. It is much used on the continent in catarrhs, in infusion or decoction, and as an emollient fomentation. The leaves are also boiled in lard to form an ointment.

Dr. W. Wilson, of Maryland, U.S., highly recommends mullien for coughs and chronic bronchitis. The mode of using it is smoking the dried leaves like tobacco. A pipeful smoked two or three times a day, he alleges, relieves irritation, promotes expectoration, acts as a salivative, and, if persevered in, effects a complete cure.

Dr. Wilson says: "I myself for ten years was a sufferer from chronic bronchitis. Every evening I became hoarse, and experienced great pain, dryness of the trachea, and constant desire to clear my throat, which in doing not only disturbed my own slumbers, but annoyed others. I tried cauterization as low as possible with nitrate of silver, counter irritation, expectorants, and inhalation, but all to no purpose; finally, I commenced to smoke the mullein, and nothing could have been more speedy and efficient in procuring relief."

The following is from Dr. Gardner:—"I have for some time past been desirous of finding a drug possessed of calmative or narcotic properties, as a substitute for opium and its alkaloids, for administration in catarrhal coughs, bronchitis, and asthma, and to induce sleep in patients who suffer from headache and other unpleasant effects after even small doses of ordinary narcotics. Having tried several with more or less success, I was led to experiment with the Verbascum thapsus, or common *mullein*. This plant has a popular reputation in some localities in bronchial affections. An infusion or decoction of the leaves is for the most part used for the purpose, and is deemed to be useful as an expectorant and demulcent. Noticing in one of the old "Herbals" that mullein has been employed to stupefy fish, I assumed it must be to some extent a narcotic. I therefore had a tincture prepared for me by Mr. Bullock from the flower-stalks, just as it was coming to seed. This tincture is of a dark rich brown colour, looking like tincture of opium, and apparently contains a large proportion of solid material. I have used it extensively, and for more than twelve months, and have found it more reliable than any narcotic, except opium and salts of morphia. In doses of one drachm to one and a half drachms it produces calm sleep, and in no case have I yet seen it followed by headache or other unpleasant sequelæ of narcotism. For coughs and bronchitis, both acute and chronic, in combination with the usual remedies, it has the soothing effects so much desired, while it does not suddenly arrest secretion, as opium has a tendency to do. It has been found useful also in some cases of asthma. I regard it as being much more active and certain than hyoscyamus. From these properties, and its apparent especial influence on the mucous membrane of the bronchia, it appears to me well worthy of adoption by the profession. It would be advisable, I think, to try the different parts of the plant separately, the flowers, seed-capsules, and seeds, as well as the stalks, leaves, and root."

GELSEMINUM SEMPERVIRENS (YELLOW JASMINE).

Our readers will perceive by our advertising columns that several pharmaceutists have anticipated a demand for many of the new American remedies not yet noticed in these papers. Amongst these there are several deserving the attention and careful experiment of English practitioners. As we have remarked already, we cannot attach the same importance to the testimony of American physicians to the remedial properties of these drugs as we do to that offered us by practitioners at home. Essential differences of climate, constitution of patients, modes of living, and the phenomena of diseases exist. Any of these may modify the effects of medicines. But whatever weight we may be disposed to allow to observations made in America, there are few of these remedies which have given rise to more publication than the Gelseminum sempervirens.

The story respecting the discovery of its medicinal properties is thus told:—"A planter of Mississippi, while labouring under a severe attack of bilious fever, which resisted all the usual remedies, sent a servant into his garden to procure a certain medicinal root, and prepare an infusion for him to drink. The servant, by mistake, collected another root, and gave an infusion of it to his master, who soon after swallowing it was seized with a complete loss of muscular power, unable to move a limb, or even to raise his eyelids, although he could hear, and was cognizant of circumstances transpiring around him. He was expected by his friends every moment to breathe his last. After some hours he gradually recovered, and was astonished to find his fever had left him. Ascertaining what plant it was he had taken, he employed it with great success on his plantation and in the neighbourhood."

It first fell into the hands of some person, who prepared and sold it as a secret nostrum. It subsequently was employed by the American sect calling themselves Eclectics, and afterwards by regular physicians. By the latter it has been used with alleged success in a variety of inflammatory and febrile diseases; but its greatest use is said to be in idiopathic fevers.

Dr. Wood thus sums up the statements of numerous writers: "It appears to be a nervous sedative, without nauseating or purgative properties, but sometimes causing diaphoresis. In moderate doses it produces agreeable sensations of languor with muscular relaxation, so that the patient finds some difficulty in moving the eyelids or keeping the jaws closed. More largely taken, it produces dizziness, dimness of vision, dilated pupil, general muscular debility, and universal prostration, reducing the frequency and force of the pulse, and the frequency of respiration, and producing insensibility to pain, but without stupor or delirium. After a short time these symptoms pass off, leaving no unpleasant effects. It usually begins to act in half an hour, and ceases to act after one or two hours. It is no doubt capable of causing death in over-doses, and must therefore be used cautiously."

A tincture of gelseminum is used, prepared by macerating eight ounces of the fresh root in two pints of diluted alcohol. This is considered to be a saturated tincture. It has a violet tinge, a peculiar odour something like new honey, and a taste not unpleasant. The dose is from ten to fifty drops, given in water; one or two doses sufficing to produce its characteristic effect—a dropping of the eyelids. In typhoid or typhus fever, not more than from three to eight drops should be given, the larger doses being adapted only to cases of a sthenic character. The sign of its action on the muscular system is, it is said, attended by a remarkable cessation of the febrile symptoms. But they are apt to recur after a few hours, unless the remedy be combined with a full dose of quinine, which prevents the recurrence.

As the plant is a native of the Southern States of North America only, it is probable that the fresh root will not be obtainable in this country. As a substitute for it and the tincture, a preparation is on sale here under the name of *gelseminine*. It appears to be prepared by precipitating the tincture, in the manner described in former papers as practised by American pharmaceutists, and rendering the precipitate into the state of powder by triturating with two parts of sugar-of-milk. Whether this will exhibit the same properties as are alleged of the tincture remains to be seen. It is also an open question whether the dried root can with success be substituted for the fresh.

If we can believe the statements of the writers who have written upon this plant, it would appear that it is a direct sedative, acting specially on the nerves which minister to muscular motion, as chloroform and ether act on the nerves of sensation. How this physiological effect ministers to the cure of fevers we leave for discussion when its remedial powers have been tested and confirmed. In the mean time it must be remembered that we have only what is likely to prove a very imperfect preparation to employ. The identification of the plant and its root, and some efficient preparation, by English botanists and pharmaceutists, are the desiderata.

In conclusion, it may be remarked that one author states that full and frequent doses of gelseminum weaken the heart, and greatly protract complete recovery from low fevers.

THE

GREAT INTERNATIONAL EXHIBITION.

XXI.

REPORT ON THE SUBSTANCES USED FOR FOOD EXHIBITED IN CLASS III.

FROM solids we pass on to notice the various liquids exhibited; and, first,

WATER.

The Silicated Carbon Filter Company exhibits not only its filters but numerous samples of unfiltered water as well as of that which has been passed through their filters. Each of these samples has been treated with permanganate of potash, by means of which reagent the extent of purification of the several filtered waters, as contrasted with the unfiltered, is clearly and strikingly shown.

The material used in the construction of these filters is the celebrated Torbanehill mineral, the nature of which, whether it be coal or not, has been so fiercely contested both by lawyers and scientific witnesses at a cost of many thousands of pounds. It is claimed for it that it is more efficient as a purifyer than even animal charcoal, since it contains much less mineral residue, consisting, in the case of the Torbanehill mineral, of minutely divided silica, and, in that of animal charcoal, of phosphate of lime.

Mr. Hooper exhibits a variety of *Artificial Mineral Waters*. We were not aware that the proper classification of such articles was amongst "The Substances used for Food," and consider that they would have been more appropriately and correctly placed in Class II., amongst the Chemical and Pharmaceutical Substances and Products. Although we have not been at the labour of analyzing these samples, we doubt not but that, from their connexion with the name of Mr. Hooper, they are close imitations of the natural waters, and, in most instances, equally efficacious medicinally.

Pitt's *Aërated Tonic Water*, which contains quinine, ought also to have been exhibited in Class II.

ALE AND BEER.

From the waters, natural and artificial, we proceed to malt liquors, of which there are several exhibitors; and, first, we shall notice the *Pale Ale* or *bitter beer*.

In our judgment, this is the most perfect, as well as the most wholesome description of malt beverage known in this country. Its characteristics are medium strength in alcohol, a small amount of extractive matter, and especially of sugar or glucose, and an aromatic and bitter taste due to the hops; its properties are that it is moderately stimulant, tonic, and anodyne; it contains so little sugar and extractive matter, that it may, in many cases, be taken with advantage by even the gouty and the diabetic.

The exhibitors of Pale Ale are Messrs. Bass and Co., Fowler and Co., Salt and Co., Garton and Co.; and to these we presume we must add Messrs. Allsopp and Sons.

It is quite unnecessary that we should say aught in praise of the pale ale of Messrs. Bass and Co.: its reputation has for a long series of years been established, and is testified by the fact of its enormous consumption over nearly the whole world. In the table given below some analyses of Bass's pale ale in bottle will be found; the specific gravity of these range from 1012·4 to 1017·2 per cent., and the anhydrous alcohol from 5·31 to 5·59 per cent.

The pale ale exhibited by Messrs. Fowler and Co., the brewers of the celebrated Prestonpans beer, agrees in its general characters with other pale ales of good quality, but it possesses in addition a flavour, not easy to describe in words, characteristic of all the Prestonpans beers, alleged to be due to the water used, and which by persons accustomed to it is so much liked; its specific gravity was 1008·1 per cent., and it contained 5·15 per cent. of absolute alcohol.

The pale ale of Messrs. Salt and Co. was perhaps of a rather deeper shade than some of the others, but, as shown by its specific gravity (1007·7), it was well attenuated, and was moreover very strong, containing 7·76 per cent. of alcohol.

That of Messrs. Garton and Co. was of a very pale straw colour, very clear and bright, and was particularly clean on the tongue—that is, when drunk no stickiness or clamminess was perceptible in the mouth. It was not analyzed until some time after the barrel came into our possession, and therefore no reliance can be placed upon the result of its subsequent examination. It should be understood that this is a peculiar description of ale, differing much from other pale ales. In its manufacture sugar is used, this having been converted by a process patented by Messrs. Garton into a very perfect form of glucose, termed by them "Saccharum." This saccharum is supplied to the trade by this firm in any quantity, and the advantages claimed for it are—the excellence of the ale made with it, its freedom from acidity, and its comparative cheapness.

Although the names of Messrs. Allsopp and Sons do not appear in the Catalogue, and although they do not occupy any space in the Eastern Annex with the other British exhibitors, yet, according to the decision of the jurors, they are to be regarded as exhibitors. While, therefore, the ales and beers of all other exhibitors were contained in casks or bottles, placed for some weeks previous to examination in situations more or less exposed to the sun, and consequently very trying to their quality, those of Messrs. Allsopp and Sons were taken by the jurors from the extensive and cool cellars which they held in the Exhibition building as contractors. This was considered to give the Messrs. Allsopp an unfair advantage over other competitors, and was loudly protested against by Messrs. Salt and Co., who were supported in their protest by the Committee of Exhibitors, to whom was entrusted the allotment of space. There is no doubt a great deal of justice in this complaint, and it would have been far better if Messrs. Allsopp and Sons had exhibited on the same conditions as the other exhibitors; not, however, that we believe for a moment that, had they done so, it would have made any difference with respect to the medal awarded them. It is well known that their pale ale, for delicacy and quality, is second to none. Of the four samples tested by us, the specific gravity ranged from 1007 to 1009·3, and the alcohol from 6·15 to 8·46 per cent., these analyses proving that their ales were thoroughly refined and of considerable average strength.

There are two exhibitors of *mild beer*, as contradistinguished from strong beer. The Prestonpans beer of Fowler and Co. is a very light, nice beverage, as pale as India ale, and suitable particularly for use in summer; its specific gravity was 1010, and it contained 3·80 per cent. of anhydrous alcohol. The mild beer or ale of Messrs. Allsopp and Sons had a specific gravity of 1024·7, and contained 5·92 per cent. of alcohol.

The exhibitors of *strong beer* are Bass and Co., Fowler and Co., and Salt and Co. Messrs. Bass and Co. exhibit their strong ale and their No. 3 Burton or Australian ale. The sample of the latter obtained by us was excellent, but from an oversight was not subjected to analysis when first procured. Messrs. Salt and Co. exhibit several qualities of their strong or Burton ale. Three of these were subjected to analysis. As shown in the table, one had a specific gravity of 1010, and contained 9·3 per cent. of alcohol; the second, of 1021, with 9·53 per cent. of spirit; and the third, of 1034, and 9·18 per cent. of absolute alcohol. These were all, therefore, very strong ales, and their flavour and condition were also excellent. The excellence of the Burton ales is, with reason, believed to be in part due to the peculiar qualities of the water used, and which contains a large amount of sulphate of lime. In this respect the water used by Salt and Co. agrees with that of the wells of Messrs. Bass and Allsopp. Amongst the samples shown by Messrs. Salt and Co. was a bottle of their No. 1 or six-guinea Australian ale, which had been brewed eighteen years, and which had been in bottle fourteen years. This, Messrs. Salt allege, the Jurors took, broke off the neck of the bottle in place of drawing the cork gently so as not to disturb the sediment which always subsides, and then proceeded to pour it out. Of course ale thus treated could not be otherwise than somewhat turbid. We have examined a bottle of this ale, which is now in course of analysis; it is obviously as sound as the day it was brewed, and nearly as free from that hardness and tartness which characterize most old ales.

Messrs. Fowler and Co. also are exhibitors of Prestonpans strong ales. One of these they denominate their "Twelve-Guinea Ale;" the alcohol in this amounted to 9·32 per cent., and its specific gravity was no less than 1068. It possessed the flavour peculiar to, and so much admired by many in, Scotch ales.

Lastly, Messrs. Richardson, Sanders, and Co. exhibit, under the name of "Pale Stout," what is stated in the Catalogue to be "a new description of beer." It is said to combine the properties of both ale and stout, without producing the heaviness or headiness of either the one or the other. It contained 6·62 per cent. of absolute alcohol.

Of the several exhibitors of ale and beer, Allsopp and Sons, Bass and Co., and Garton and Co., were awarded medals, the

latter for "a new kind of beer from grape sugar," and Fowler and Co., and Salt and Co., honourable mention. The beers of these latter exhibitors were so excellent that it is not easy to discern upon what grounds the higher award was withheld.

ANALYSES ILLUSTRATING THE COMPOSITION OF DIFFERENT KINDS OF ALE AND BEER.

——	Specific Gravity.	Acidity in 1000 grs.	Absolute Alcohol.†	Glucose in 1000 grs.‡	Extract in 1000 grs.
Allsopp's Mild Ale or Beer (in draught) ...	24·7	2·4*	5·02	...	82·9
,, Pale Ale (ditto)	8·6	2·2	6·15	...	44·9
,, Ditto (in bottle)	9·3	2·5	6·59	...	47·1
,, Ditto (ditto)	8·6	3·1	8·46	...	44·9
,, Ditto (in draught)	7·0	2·7	6·72	...	40·9
Bass's Pale Ale (in bottle)	14·3	2·6	5·59	...	60·4
,, Ditto ,, ...	17·2	1·9	5·40	1·8	62·2
,, Ditto ,, ...	16·9	2·2	5·46	2·3	65·6
,, Ditto ,, ...	12·4	2·3	5·31	3·9	55·0
,, Ditto ,, ...	15·6	2·2	5·35	2·1	60·1
Garton and Co.'s Pale Ale (in cask)	11·6	3·0	3·94	...	55·1
Fowler and Co.'s Prestonpans Beer	10·0	1·6	3·80	...	46·0
,, ,, Pale Ale	8·1	3·0	5·16	...	41·1
,, ,, Twelve-Guinea Ale... ...	68·0	4·4	9·52	84·2	210·9
Richardson, Sanders, and Co.'s Pale Stout ...	15·8	4·6	6·62	3·7	66·2
Salt's Burton Ale	12·0	3·9	9·30	4·4	60·2
,, Ditto	21·0	7·3	9·56	19·4	86·6
,, Ditto	34·0	4·7	9·18	30·3	122·8
,, Pale Ale	7·7	3·0	7·76	2·7	48·4

* Grains of anhydrous carbonate of soda. † Specific gravity 793·9. ‡ Estimated by the copper test.

We shall, in the next place, make a few remarks upon two beverages which in some parts of the country have never yet been superseded by beer—namely, Cyder and Perry. When these beverages are well made and in good condition, there are few drinks which, in our judgment, equal them for delicacy and even deliciousness of flavour. They are certainly far more agreeable to the palate than inferior foreign wines, and in summer are most grateful and refreshing. Their characteristics are, that they are rich in extractive, especially in glucose, are somewhat acid, but, as a rule, poor in alcohol, to an extent which we scarcely anticipated, as shown by the table of analysis given herewith. Of these drinks, therefore, the teetotalers need not be in any great apprehension.

The exhibitors of cyder and perry are Mr. Fryer, Mr. Du Parcq, and Messrs. W. and S. Kent and Sons. All the cyders and perries exhibited by Mr. Fryer were good, and in excellent condition, although some of them were very old. The cyder made from the Longney Russet was really delicious, being full of flavour and bouquet; the Squash Perry was also very good, but the strongest was that made from Butt's pear, which contained 4·04 per cent. of absolute alcohol. Du Parcq's Pure Cyder was not to our taste, but his Champagne Cyder was delicious. Of all the cyders and perries examined by us, the strongest were Kent and Sons' Oldfield and Upton Perries, in which the alcohol amounted to 4·42 and 5·74 per cent., the flavour of both being very fine, and particularly that of the Upton Perry; this was made from a pear of high specific gravity, which probably accounts for its unusual strength. These three exhibitors of cyder and perry were all awarded medals.

ANALYSES, ILLUSTRATING THE COMPOSITION OF CYDER AND PERRY.

——	Specific gravity.	Acidity, dried Carb. of Soda, in 1000 grs.	Alcohol per cent.*	Glucose in 1000 grs †	Extract in 1000 grs.	Remarks.
Du Parcq's Pure Cyder	27·6	4·3	3·29	59·8	74·1	
,, Champagne Cyder	46·0	3·4	2·53	103·7	120·6	
Fryer's Cowan Red Cyder	25·7	5·0	3·15	66·1	74·6	Made in 1857, bottled in 1860.
,, Longney Russet Cyder	28·7	4·4	2·19	88·2	77·4	Made in 1853, bottled in 1855.
Kent and Sons' Sparkling Herefordshire Cyder.	22·1	3·7	2·45	37·0	62·4	
Fryer's Butts Pear	9·5	4·4	4·04	7·8	40·4	Made in 1857, bottled in 1860.
,, Squash Perry	23·8	5·4	2·90	30·3	71·5	Made in 1857, bottled in 1859.
Kent and Sons' Oldfield Perry	27·2	6·2	4·42	38·8	80·6	
,, ,, Upton Perry	34·7	8·0	5·74	42·3	110·5	

* Anhydrous alcohol of specific gravity, 793·9. † Estimated by the copper test.

GARIBALDI'S WOUND.—M. NELATON'S CLINICAL REMARKS.

On the 23rd ult., M. Nélaton received from the Prefect of Pisa the following telegram:—"This morning, at ten, Professor Zanetti removed the ball from the General's foot. All honour to your diagnosis." Respecting this favourable result, M. Nélaton made the following remarks to his class at the Hôpital des Cliniques:—

"When we consider the variety of opinions which have been offered respecting the presence of a foreign body in the wound, it is evident that the favourable result lately obtained would have been very long delayed had we not means of accurate diagnosis. Let me remind you that the wound is on a level with the anterior edge of the inner malleolus, which latter has been fractured by the ball; the wound runs in a transverse direction, and the probe, introduced about one inch into it, came in contact with a hard body. The sound heard on striking was dull, and very unlike that produced by meeting with necrosed or carious bone. The ball was lodged in front of the neck of the astragalus, though its presence could not be detected by examination of the instep in consequence of the tension of parts in that region. I was, however, perfectly certain that the ball was there, and advised gradual dilatation. But M. Porta, who explored with his finger, did not agree with me.

"On my return to Paris, I endeavoured to contrive exploring instruments which should convince those who were not of the same opinion as myself. I thought, first, of a sound ending in a kind of file which could take off a few metallic particles. I had some constructed; but M. E. Rousseau gave me the idea of an instrument which would bring away particles of metal. We had, therefore, a probe made, to

the end of which was fixed an olive-shaped body, made of unpolished china, upon which mere contact would leave a mark of the projectile, and prove its presence. M. Charrière made several instruments of this kind, composed of a silver stem, ending in a china knob. The mere rubbing of this instrument against lead is sufficient to make a stain, which neither the soft parts nor the morbid secretions could obliterate; a simple rotation of the instrument upon its axis fixes upon it a kind of meridian.

"But affirmations of mine are not sufficient—proof is the main thing; nor has this been wanting, for, with this instrument, Professor Zanetti became so certain of the presence of the ball that he forthwith extracted it.

"Other instruments have been proposed to diagnose a ball at the bottom of a wound. M. Favre, Professor at Marseilles, has invented the following:—Two conducting wires are placed in a sheath, or the two electrodes may be covered by an isolating substance. These wires are in communication with a battery of only one couple, and a galvanometer is fastened on one of the wires. If you introduce the end of these into a wound, the contact of the soft parts, the bones, or pus, is not sufficient to establish a current; but if the ends come in contact with a metallic body, the needle of the galvanometer will rise, this being a proof that the circuit is complete. Only one couple, however, should be used, so as to avoid the decomposition of the fluids in the wound, which decomposition would immediately give rise to a current."

Correspondence.

"Audi alteram partem."

THE LANCASHIRE DISTRESS MEDICAL FUND.

To the Editor of THE LANCET.

SIR,—I beg gratefully to acknowledge, from the proprietors of THE LANCET, the receipt, on behalf of the Medical Kitchen, of the sum of £20, the cheque for which I had great pleasure in handing over to the president of the committee, the Rev. Dr. Rushton.

The necessity for the formation of this and similar establishments throughout the stricken districts of Lancashire is being painfully felt by those medical men who are called upon to cope with diseases greatly aggravated, if not actually induced, by that state of semi-starvation to which so large a proportion of our operatives have now been reduced; and I am sure the members of the medical profession owe no small debt of gratitude to THE LANCET for inaugurating a movement which cannot fail greatly to strengthen their hands, and enable them to combat disease with some measure of success. Without some such scheme, the lives of hundreds must inevitably be sacrificed. Nourishment and warmth, as well as physic, are required; and without these adjuncts, the utmost efforts of the medical man will avail but little, when contending against disease occurring in persons whose powers of vitality have been reduced, by starvation, to a minimum.

Our "Kitchen" has only been at work for a few days, but sufficiently long to prove how great a boon it must eventually become to both patient and medical man.

I remain, Sir, yours truly,

35, King-street, Blackburn, Lancashire, Dec. 2nd, 1862. EDWARD S. MORLEY.

To the Editor of THE LANCET.

SIR,—The noble example you have set and propounded in your last week's publication will, I trust, be followed by those of our profession who are well-to-do, by which means the sufferings of those who daily come under our care may be promptly alleviated, by affording the means of procuring those necessaries in the way of food and stimulants of which they so frequently stand in need, thus prolonging convalescence, or being in a state of debility which ultimately leads to further, and perhaps fatal, disease.

Out of a population of 56,000, most of whom are employed in cotton manufactures, there are upwards of 26,000 receiving relief—8000 from the Board of Guardians, and upwards of 18,000 from the various district relief committees that have been formed to distribute the liberal voluntary contributions, that have been hitherto given at an average rate of 2*s.* per head per week, and in addition 1 cwt. of coals, also bedding and clothing as fast as it can be obtained and distributed. These district committees are also empowered to add to this relief in cases of sickness on production of a medical certificate; but there are very many cases sent to us of debility, where there is no particular disease—a state brought on by long-continued insufficient and impoverished diet, predisposing to the development of fever, by exposure to cold or changes, which at other times the body would be able to resist, as their clothing and bedding have been for a long time in safe custody with the pawnbrokers, to whom the people have applied before seeking relief elsewhere. Many of these have had comfortably furnished homes, and never thought that they should ever be in a position to ask relief. To many the medical attendant has frequently out of his own resources (which are now very seriously curtailed) to act as relieving officer; and in cases of sickness and distress can anyone fulfil those duties more acceptably to the recipients?

To add to our present distress, some of the wards of our Infirmary have been closed, in consequence of want of funds, many being unable to keep up their subscriptions; so that there will be a large deficit at the end of the year. *Our poor-rate amount to 7s. 6d. in the pound.* More than half will be unable to pay; so that those who are able will be doubly burthened.

So far, thank God, we have no epidemic of fever, although isolated cases occur more frequently than usual; and I hope, by doing all we can to keep up the physical strength, by sufficient food, clothing, and bedding, we may escape such a calamity, which, when it does occur, is no respecter of persons.

I remain, Sir, yours very truly,

Stockport, Dec. 1862. WILLIAM RAYNER, M.D., J.P.

To the Editor of THE LANCET.

SIR,—I have much pleasure in contributing to the above fund; but as the want of medical comforts &c. will rather increase than diminish as the winter goes on, I would suggest that our efforts should be directed to the creation of a monthly (or weekly) income. With this view, I herewith forward £1, and will send a like sum on the 1st of the ensuing four months, or longer if necessary.

I am, Sir, your obedient servant,

HENRY W. KIALLMARK, M.R.C.S.

Princes-square, Bayswater, Dec. 1st, 1862.

Dr. S. D. LEES, Mayor of Ashton-under-Lyne, writes as follows:—

"Our sewing-classes of 6676 young women, and men's classes of 1464, are surprising establishments to meet the requirements of the day. I mention the last week's return: some hundreds will be added ere long."

THE PREVALENCE OF EPIDEMICS.

To the Editor of THE LANCET.

SIR,—For the last twelve months or more there has been a considerable immunity from disease, especially epidemic disease, and a lessened mortality has been the consequence. This lessened mortality has not been, and is not, confined to one district and class of people in England, &c., but extends to all districts and all classes of people. Therefore to say that the diminished means of expenditure in the manufacturing districts largely accounts for the above phenomena, is illogical, untrue, and anything but comprehensive, and cannot be entertained as a solution of the problem; for both those people and districts, affected or unaffected by the cotton famine, are alike under the one general influence—an influence of immediate good, so far as present health and mortality are concerned. But what of that? Had we not previously increased disease and mortality, and yet a more prosperous time? Superficial observers, and, perhaps, those interested in low earnings, gladly and hurriedly avail themselves of the latter facts, and cry out that diminished means of expenditure—an expenditure limiting the consumption of luxuries—make themselves felt in lessened disease and mortality; but remember, on the other hand, a little more descent in diminished means, and you will have people crying

out again, "Famine and disease and death, the result of diminished means of expenditure!" Both these cries now occupy the public mind. In the latter cry there is some fear and reason; in the former there is much apparently for congratulation, though no reason to look upon it as a logical deduction. The distress of the present day is entirely owing to the perversity of man—a sequel that a child might point out and say, See how one event follows another as a natural consequence: war, checked commerce, fiscal difficulties, followed by want of occupation for the people, diminished earnings, and increasing distress and poverty, ending—if not otherwise averted by the strenuous efforts of the benevolent and by *wise* legislation—in disease and death, or, in many instances, even in death without the intervention of disease. How this current of circumstances differs from another current of circumstances, where natural laws seem to overtop and embrace every phenomenon, every event, take for instance the all but inscrutable potato disease. Here some natural law, or some interruption of a natural law, is followed by disease, both in the animal and vegetable world, causing greatly increased mortality, commercial difficulties, diminished earnings and distress, and other results easily enumerated.

Anyone having arrived at maturity when these things first showed themselves, and having lived through the last eighteen years,—a period specially marked by the now declining potato disease,—and having been placed in positions facilitating observations on life and mortality, cannot avoid the reflection that he has passed through a cycle of time—perhaps not yet entirely fulfilled and terminated—which ought to have afforded so much food for thought as to justify a laudable attempt to advance the knowledge of the world in the laws regulating health and mortality as far as epidemic diseases and peculiarities are concerned.

Now to what I consider the actual state of the case. I know and feel that I differ from all men on the subject in question, and therefore I beg to speak or write with diffidence and respect to all concerned. Moreover, I do not propound my doctrines as absolutely established, but only that I have fair reasons and some facts to sustain me in my single position.

That the diminished disease and mortality of late has for its solution the same cause as the diminished disease and destruction of the potato crop which is apparent this year. And what is that cause?

That there is a widespread and general law governing these matters, I feel assured, and the only dispute that can arise is, Can we point to that law, and sustain it in the least?

Some years ago I propounded a theory as to a law governing epidemics. I attributed all to fluctuations of terrestrial magnetism. I feel no reason to swerve from my position there exhibited. Time has so far sustained me, and though my means of observation have been and are very limited, nevertheless I have not ceased to extend them, as far as circumstances would permit. Furthermore, I am sustained in my theory by the fact mentioned by Sir M. Faraday, that the "human body is diamagnetic." Will not this justify the idea that health and vitality may be influenced by magnetic aberrations?

Early in the potato disease period I established a magnetometer (probably peculiar to myself), and I found when the disease was at its worst great fluctuations in my instrument; and now when the probable period is approaching of a termination of the disease, there is a steadiness in magnetic phenomena, very remarkable as contrasted with a former period. And so far my mind is satisfied that I am on the right road to an elucidation of these phenomena.

An idea struck me that there is a limit to the amount of vitality on the earth; that the quantity of vitality never differs very much or widely, and that when it reaches an extreme, disease and increased mortality step in to reduce all again to a proper balance. I use the word vitality in its widest sense. I include in it everything alive on earth. I mentioned this to a Russian philosopher whilst on a visit to the International Exhibition, and his answer was—"Ah! I can see, were all the elements of the earth embodied in living things, then there would be a check to further extension of vitality." This was the meaning of his words, if not the actual words themselves. In return, my answer was, "You have stated the extreme relations of this question. Vitality would receive a check long before such an extremity could possibly be reached." The height of mountains is limited. The atmosphere, the ocean, the earth, the cold, the heat, &c., are limited, and without a doubt the amount of vitality must partake of the general law, and be limited also.

Yours obediently,

Carlisle, Nov. 1862. WM. REEVES, M.R.C.S.

MORTALITY IN WORKHOUSES OF LYING-IN WOMEN.

To the Editor of THE LANCET.

SIR,—Should the following statistics be of sufficient interest for insertion in your journal, it may be the means of your receiving communications from other large metropolitan workhouses.

At Bethnal-green, the number of deliveries in ten years has been 610; the number of maternal deaths in the same period was two—one from ruptured uterus and one from low fever. A large majority of the females were unmarried.

I am, Sir, your obedient servant,

JAMES SMART,
Medical Officer, Bethnal-green Workhouse.

Cambridge-heath, Dec. 1862.

SARRACENIA PURPUREA IN SMALL-POX.

To the Editor of THE LANCET.

SIR,—Dr. F. N. Manning, of York, announces in the last number of THE LANCET, that "having tried the Sarracenia purpurea in a number (*sic!*) of carefully-selected cases of small-pox, he had arrived at the conclusion that the medicine has no effect on the course of the disease."

May I suggest to this gentleman, that the profession (like myself) would prefer the publication of his *cases* in place of his *conclusions!* I am, Sir, yours obediently,

December, 1862. S. H.

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR SPECIAL CORRESPONDENT.)

A RECENT number of the *Patrie*, in an article upon the baking trade of Paris as contrasted with that of London, makes certain revelations regarding the process of bread-making in your metropolis which cannot fail to be interesting to the consumer. Your readers may possibly remember that some months ago I drew attention to a contest actually going on between the corporation of bakers in this capital and the Government, relative to a proposed absorption of the bread-producing privilege by the latter. Certain experiments at the Maison Scipion had proved that a better and cheaper article could be produced by establishments conducted on a more extensive scale than that which at present prevails; and as the price of bread in Paris is a matter which seriously affects, one way or other, the temper of the Faubourg St. Antoine, the Executive meditated the insertion of at least one finger into the pie now in the oven. When, however, a few weeks back, this measure was discussed in Council, M. Haussmann, Prefect of the Seine, who is a good judge of the pulse of Paris and the Faubourgs, strongly opposed the scheme, and so vividly depicted the disgust of the bakers at the prospect of losing their monopoly, that an adjournment of the question was decided on. The *Patrie*, an enemy of the small bakehouse system, by way of pleading the cause of centralization, now holds up to public animadversion the English mode of bread-making of the present day. The preparation of the staff of life, as managed in London, appears, according to this journal, to present certain peculiarities not to be found everywhere. The process seems to be conducted by individuals of so unwashed and unkempt an aspect as to form a class apart; the dungeon in which the kneading stage is accomplished is inhabited by every genus of the animal kingdom falling under the general denomination of vermin, many of whom are ultimately to be found fossilized in the crumb of the loaf. Moreover, the London bread is dearer than that of Paris. During the first ten months of the present year, bread of the first quality has been sold in London 10 per cent. dearer than in Paris, and that of the second quality 25 per cent. dearer. This, however, may be explained by the existence of the fixed prices, periodically imposed by the Government, as a means of favouring the working classes. Another fact worthy of remark is, that in Paris the baker can afford to sell a cheaper article than his London *confrère*, the proportion of consumers being in the former case one in 1800, in the latter case one in 1000 of the population.

M. Trousseau has revived, at the Hôtel Dieu, a plan for the cure of ovarian dropsy, which he originally proposed in 1835. This method of treatment consists in the establishment of inflammatory action in a limited portion of the peritoneum, so as

to produce adhesion between the two surfaces, thus bringing the cyst in permanent contact with the walls of the abdomen. This *modus operandi*, which the Professor terms "Multiple Acupuncture," consists in the introduction directly through the walls of the belly into the cyst of twenty or thirty long steel needles tipped with sealing-wax, to prevent them from penetrating too far. Inflammation is thus set up within a circumscribed limit, and adhesions induced. When, at the end of five days, the needles are withdrawn, a drop or two of the contents of the tumour will be seen to well up from the puncture, and on pinching up a portion of skin an indurated disc formed in the situation of the adhesion may be distinctly felt. In this spot the tapping of the cyst may be effected, care being taken to divide the skin before the introduction of the trocar, so as to avoid the risk of disturbing the recent adhesions. The woman upon whom M. Trousseau operated in the spring was unfortunately a consumptive subject, and did not recover, but died of exhaustion last month.

THE LANCASHIRE DISTRESS MEDICAL FUND.

THE following is the list of contributions to the present time:—

The Proprietors of THE LANCET ...	£100	0	0
Dr. Watson, President of the College of Physicians	5	0	0
James Luke, Esq., President of the College of Surgeons	2	2	0
George Critchett, Esq., President of the Hunterian Society	5	0	0
Dr. F. Sibson, President of the Medical Society of London	3	3	0
Ernest Hart, Esq.	20	0	0
Dr. Barnes	2	0	0
J. F. Clarke, Esq.	2	2	0
J. N. Radcliffe, Esq.	1	1	0
Messrs. Spalding and Hodge	10	10	0
T. T. W. Bennett, Esq.	1	1	0
Thomas Westlake, Esq.	1	1	0
Dr. Wingate Johnston	1	1	0
Dr. Collins	2	2	0
H. W. Kiallmark, Esq.	1	0	0
Dr. Hassall	2	2	0
Dr. Townley	2	2	0
I. Baker Brown, Esq.	2	2	0
B. W. H., a Fox-hunter	5	5	0
The Compositors employed on THE LANCET	1	10	0

The disbursements are as follows:—

£20 to the Blackburn Medical Kitchen, through Mr. E. S. Morley, Surgeon.

£20 to the Ashton-under-Lyne General Relief Committee, through Dr. S. D. Lees, the Mayor.

Subscriptions will be received on account of the "Lancashire Distress Medical Fund" at the London and Westminster Bank (St. James's-square), or at THE LANCET Office.

A Committee is in process of formation.

BIRKENHEAD BOROUGH HOSPITAL.—This rising town, on the Cheshire side of the Mersey, which has long outgrown its hospital accommodation, is on the point of being furnished with one commensurate with its exigencies. Mr John Laird, M.P. for the borough, has benevolently undertaken the whole cost of a building of appropriate dimensions and appliances. The plans have been based on some of the best continental and British models, and the whole has received the approval of Miss Florence Nightingale. The exercise grounds, for the use of the convalescents, are spacious. The foundation-stone has been laid by the Marquis of Westminster, and the building is now in course of erection.

Medical News.

UNIVERSITY OF LONDON.—The following are lists of candidates who passed the respective Examinations indicated:—

SECOND M.B. EXAMINATION.

FIRST DIVISION.

Bayldon, John, B.Sc., Surgeons' Hall, Edinburgh.
Griffiths, Thomas, University College.
Howlett, Richard Whitfield, King's College.
Huxley, James Usher, King's College.
Jeaffreson, Horace, St. Bartholomew's Hospital.
Morton, Thomas, King's College.
Parson, Edward, King's College.
Powell, William, London Hospital.
Shepherd, James, University College.
Smith, Thomas Starkey, University College.
Squire, Alexander John Balmanno, University College.

SECOND DIVISION.

Dale, William, Leeds School of Medicine and Middlesex Hospital.
Dawson, Richard, University College.
March, Henry Colley, St. Thomas's Hospital.
Maradin, Frederic, King's College.
Stockwell, Frederick, St. George's, and Bath United.
Tibbits, Edward Thomas, University College.

EXAMINATION FOR HONOURS.

PHYSIOLOGY AND COMPARATIVE ANATOMY.

Huxley, Jas. Usher (University Scholarship and Gold Medal), King's College.
Squire, Alex. John Balmanno (Gold Medal), University College.
Morton, Thomas, King's College.

SURGERY.

Smith, Thos. Starkey (University Scholarship and Gold Medal), University College.
Howlett, Richard Whitfield (Gold Medal), King's College.
Griffiths, Thomas } equal, { University College.
Huxley, Jas. Usher } { King's College.
Morton, Thomas } equal, { King's College.
Powell, William } { London Hospital.

MEDICINE.

Smith, Thos. Starkey (Scholarship and Gold Medal), University Coll.
Huxley, James Usher (Gold Medal), King's College.
Griffiths, Thomas, University College.
Squire, Alex. John Balmanno, University College.
Parson, Edward, King's College.

MIDWIFERY.

Parson, Edward (Gold Medal), King's College.
Huxley, James Usher } { King's College.
Smith, Thomas Starkey } equal, { University College.
Squire, Alex. J. Balmanno } { University College.
Griffiths, Thomas, University College.
Morton, Thomas, King's College.

M.D. EXAMINATION.

Farre, Charles Hilton, Guy's Hospital.
Galton, John Henry, Guy's Hospital.
Mackenzie, Morell, London Hospital.
Ramsbotham, Walter Bassett, University College.
Butter, Joseph, University College.
Walcott, Robert Bowie, St. Thomas's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 27th ult.:—

Aspray, Charles Owen, 8, Newton-road, W.
Bastian, Henry Charles, 14, Burton-crescent.
Biddle, Daniel, St. Thomas's Hospital.
Cæsar, Richard Thompson, Hadlow, Tonbridge, Kent.
Cornish, Philip Alfred, Modbury, Devon.
Curtis, Collins, Great Northern Hospital.
Stewart, Charles John, 5, Montague-place, Kentish-town.

The following gentleman also on the same day passed his first examination:—

Power, William Henry, St. Bartholomew's Hospital.

CHOLERA IN INDIA.—Cholera is very prevalent among the Europeans at Peshawur.

THE FRENCH ARMY IN MEXICO is still suffering severely from sickness.

DISTRESS IN THE ISLE OF SKYE.—Owing to the failure of the harvest, the inhabitants are suffering acutely from privation. Fever and measles are very prevalent.

THE FACULTY OF MEDICINE IN PARIS have presented the following names for the chair of Clinical Midwifery vacant at the Faculty: 1. M. Depaul; 2. M. Pajot; 3. M. Blot.

CINCHONA PLANTS IN INDIA.—Some thousand cinchona plants have been raised from seed, and are now flourishing in India.

TESTIMONIAL TO A POOR-LAW SURGEON.—The poor of Acton have presented to Mr. Day, who is about to leave that place, a clock, as a grateful tribute for his long-continued kind treatment of them.

YELLOW FEVER AT RIO JANEIRO.—By order of the Board of Health of the 17th ult. vessels from Rio Janeiro are placed under quarantine regulations, that place being visited by cholera and yellow fever.

THE NUMBER OF STUDENTS AT THE EDINBURGH UNIVERSITY up to Nov. 22nd was as follows: Matriculated in the Faculty of Arts, 600; Medicine, 470; Law, 259; Divinity, 71; total, 1400.

PATIENTS EMPLOYED IN LUNATIC ASYLUMS. — The average number of patients employed in fifteen asylums in England is, of males 67·2 per cent., and of females 69·2 per cent.

THE METROPOLITAN WATERS IN NOVEMBER, according to the analyses of Dr. Robert Dundas Thomson, F.R.S., are to a considerable extent more impure than last month, both in regard to total and organic impurity.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting on Monday last, Sir R. I. Murchison was elected a manager, in the room of Sir B. C. Brodie, Bart., deceased.

THE FEDERAL SICK LIST.—The President of the United States Sanitary Commission reported that on the 28th of October last there were 120,000 Federal soldiers sick and wounded in hospitals and convalescent camps.

INOCULATION WITH STRAW FUNGI.—In the October number of the *American Journal of Medical Science*, Dr. Salisbury gives various cases in which he had inoculated patients with straw fungi as a preservative against measles. He reports that they nearly all did well.

NEW TRANSPARENT CARMINE INJECTION. — In the "Archives of Medicine," Dr. Cotton, of Leamington, gives a formula for the preparation of a new transparent carmine injection, which he states to have greater penetrating power than any yet introduced.

BIRTHS IN SCOTLAND.—25,798 births were registered in Scotland during the third quarter of the present year, being at the rate of 3·37 per cent. of the present estimated population. This exactly corresponds with the English proportion for the same quarter.

THE USE OF QUININE IN THE INDIAN ARMY has been followed by a steady diminution in the rate of mortality. In 1830, previous to its extensive use, the per centage of deaths to the cases of fever was 3·60; while in 1855 it was only 1 per cent. in a body of 18,000 men scattered from Peshawur to Pegu.

THE NETLEY MILITARY HOSPITAL AND MEDICAL SCHOOL. — Arrangements are in progress for removing the general hospital, as well as the invalid depôt, together with the entire staff of officers and other officials at Fort Pitt and St. Mary's Barracks, to Netley, where the large military hospital will be ready for the reception of patients early in the approaching year.

TÆNIA FROM EATING PORK.—Dr. Marston, of the Royal Artillery, relates that tænia is very common in Malta. In the Royal Artillery many cases have occurred from the men eating underdone or raw rations of pork. Infants that have been allowed to suck the ration pork have also been affected by it.

RETARDED DEVELOPMENT OF THE PERMANENT TEETH. —At the November meeting of the Odontological Society, Mr. Vasey reported the case of a young lady, aged eighteen, whose superior central incisors were not developed, the whole of the others being perfect. He made an incision in the gum, and in a few weeks the teeth descended in a well-developed form.

ASYLUM FARMS.—The American asylums for insane persons are in some instances provided with farms for the employment of the patients. The hospital farm of the Iowa Asylum consists of 173 acres of fertile land, affords ample occupation for the patients, and a valuable addition to the resources of the institution.

CINCHONA SUCCIRUBRA.—Dr. Anderson, of the Calcutta Botanical Gardens, having succeeded in forming an infusion of the leaves of the Cinchona succirubra from the plants of that species in the cinchona nursery, near Darjeeling, reports to Government that four cases of intermittent fever have been cured by it. The infusion thus possesses some of the febrifuge properties of cinchona. It is of a dark chocolate colour, and is intensely bitter.

OVARIOTOMY IN FRANCE.—Dr. Kœberlé, of Strasbourg, has transmitted to the Academy of Medicine the account of his second successful case; the last operation taking place on the 29th of September. M. Boinet has communicated to the same body the detailed account of a similar operation, with equally favourable results. The patient was thirty years of age.

PUCKETT FUND.—Mr. Griffin requests us to state that he has received £5 5s. from Sprott Boyd, M.D., of Sydney. Dr. Boyd was formerly a resident at Weymouth. The fund now amounts to £1050 15s. 6d. Mr. Griffin has also received 10s. from W. Woodward, M.D., Worcester, towards the Poor-law Medical Reform Association.

POWERS OF ENDURANCE.—Captain C. F. Hall, in a memoir read to the American Geographical Society, relates striking instances of the power of endurance among the Esquimaux. A party of seal-hunters were floated off from the mainland on a pack of ice, and could not return for thirty days, during which time they had not a morsel of food (?)

A FORTUNATE DENTIST.—On a recent occasion the Sultan, suffering from violent toothache, sent for his dentist, who happened to be out hunting. A poor operator was, however, found, who extracted the tooth, and was rewarded by being appointed dentist to the Sultan, with a salary of 1600 piastres a month, an excellent house, and an immediate *cadeau* of 150 lires.

HEALTH OF SCOTLAND.—Over the whole of Scotland affections of the throat have been on the increase, and the tendency of them to assume the diphtheritic form has been observed. Diphtheria was first noticed in the epidemic form in Scotland in 1857, and has been advancing ever since. It has been especially prevalent during the past quarter in the northern half of Scotland.

THE RETURNS FOR THE CITY OF LONDON for the last week show a mortality above the average for the season. There were 75 deaths. In the course of the last month the weekly proportion has risen successively from 53 to 66, 69, and 75. The increase has been chiefly among children and old persons, and no doubt caused by unfavourable weather.

VAPOURS PRODUCED BY RESPIRATION.—The following has been proposed as a subject of scientific inquiry:—"To investigate the nature of the substances contained in the vapours produced by the respiration of man and animals in a state of health; which is to be extended, if possible, to the substances exhaled in certain maladies, contagious ones especially, and this not only in reference to chemical analysis, but also an examination of their hurtful effects in different animals."

A NEW POISON.—The berries of the Melia Azedarach, or Bead-tree, which grow in magnificent yellow bunches, are decidedly poisonous. A herd of swine fed on them while in a field in Algeria, where it flourishes abundantly, and upwards of seventy died from the effects of the poison. Although the berries are poisonous, the bark is useful in intermittent fevers, and in other respects the plant possesses useful medicinal qualities.

THE NUMBER OF SURGEONS IN THE FEDERAL ARMY. —In the regular service there are 251 surgeons, and 271 enlisted medical cadets and hospital stewards. In the volunteer service there are 2060 surgeons, and 1200 contract physicians employed as assistant-surgeons. There are also 262 staff-surgeons, and 120 assistant staff surgeons. The total of these is 4124, and is exclusive of new appointments.

NYE'S MINCING MACHINE.—This machine is intended for mincing meat, &c., for sausages and forced meats, also vegetables for soups, as well as for other purposes in the culinary art. For all these purposes it is admirably calculated; but the ground on which it especially demands the attention of the profession is the service it may render in lunatic asylums to those patients to whom the use of the knife and fork is interdicted, also to invalids whose powers of mastication are feeble. It will be found valuable for the nursery, and for persons with decayed teeth.

WEIGHTS AND MEASURES OF THE BRITISH PHARMACOPŒIA.—The General Council of Medical Education and Registration, having received and considered several communications from the Royal Colleges of Physicians in London, Edinburgh, and Dublin, and the Council of the Pharmaceutical Society in Edinburgh, and after having negatived a motion for adopting the French Decimal System of Weights and Measures, have finally resolved:—"That the weights and measures used

in the British Pharmacopœia be the imperial or avoirdupois pound, ounce, and grain; and that the terms 'drachm' and 'scruple,' as designating specific weights, be discontinued."—*Pharmaceutical Journal.*

MIDDLESEX HOSPITAL.—One of the medical officers of this institution, in a letter in *The Times*, says that although the hospital, previous to the alterations about fourteen years ago, was the seat of pyæmia, hospital gangrene, and erysipelas to a fearful extent, these diseases have almost disappeared. There has not been a single case of hospital gangrene during the whole period, and for the last six years the average of pyæmia cases has been one in 1200. These all occurred during a period of fifteen months, and on the removal of the cause they also ceased, there not having been a case during the last two years. Erysipelas has occurred only once in 115 cases, and during six years there have been only six deaths in upwards of 13,000 cases. The situation of the hospital does not possess any special hygienic superiority, being packed closely amidst houses; nor has it any extraordinary system of ventilation, which, however, is well secured by the whole of the passages, &c., having free communication with the external air.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, NOVEMBER 29.—The mortality of London was high in the second and third weeks of November, as has been shown in the Reports for those periods; but it has risen still higher in the week that ended last Saturday, when the number of deaths was 1745. This is a considerably greater number than in any corresponding week of the last ten years, except that of the year 1858, when the number that occurred in a less than the present population was 1738. The following numbers show the constant increase of deaths in the four weeks of the last month: they were 1307, 1429, 1559, and 1745. In the first of those weeks the mean temperature of the air was about 45°. In the last three the mean weekly temperature was 37° or 38°. The atmosphere was cold and frequently very humid. Nearly 300 deaths occurred last week more than the number that would have been returned if the average rate of mortality at the end of November had ruled. The deaths from "diseases of the respiratory organs" were last week 470; and to take two special diseases in that class, those from bronchitis were 269; and from pneumonia 131. Phthisis was fatal in 169 cases. Nearly half the deaths from bronchitis occurred at 60 years of age and upwards. There were 94 fatal cases of measles, and 95 of scarlatina.

The births were—boys, 971; girls, 863; total, 1834.

MEDICAL VACANCIES.

THE office of Accoucheur to the St. Marylebone General Dispensary has become vacant through the resignation of Mr. Squire.

There is a vacancy for a Senior Assistant Medical Officer at the Surrey County Lunatic Asylum, vice Mr. William Orange, appointed Deputy Superintendent of the Broadmoor Criminal Lunatic Asylum.

A vacancy has occurred for a Physician to the Surrey Dispensary.

MEDICAL APPOINTMENTS.

DR. M. T. O'KELLY has been appointed Physician to the Clongowes College, Co. Kildare, vice Dr. Christopher Clarke, deceased.

Dr. G. White has been appointed House-Surgeon to Gray's Hospital, Elgin, vice Mr. Moir, resigned.

Mr. Wm. Withal James has been appointed Surgeon to the Devon County Prisons at Exeter, vice Mr. Chas. Knighton Webb, deceased.

Mr. Fred. Fawson Lee has been elected House-Surgeon and Apothecary to the Salisbury General Infirmary, vice Mr. F. P. Darke, resigned.

Dr. THOS. W. Shiell has been appointed one of the Medical Staff of the Maryborough Lunatic Asylum, Queen's County.

Dr. Wm. B. Phelan has been appointed Medical Officer to the Kilmaganny Dispensary District, Callan Union, Co. Kilkenny, vice Dr. T. W. Shiell.

Mr. Wm. Orange has been appointed Deputy Superintendent and Surgeon of the Broadmoor Criminal Lunatic Asylum.

Mr. R. H. Newett has been elected Medical Officer and Public Vaccinator for the Louisburgh Dispensary District of the Westport Union, Co. Mayo, vice Dr. J. P. Harris, appointed to the Newport Dispensary District of the Nenagh Union.

Dr. R. Turnbull has been appointed Medical Officer for the third District of St. Cuthbert's Parish, Edinburgh.

Mr. Wm. R. Moses has been appointed Dispenser to the South Staffordshire General Hospital, Wolverhampton, vice Mr. Wm. Hartley, resigned.

Dr. B. Henry has resigned as one of the three District Surgeons of Greenock, Renfrewshire, on being elected to the Parishes of Arrochar and Luss, Dumbartonshire.

Births, Marriages, and Deaths.

BIRTHS.

On the 19th ult., at Bexley-place, Greenwich, the wife of H. Rowland Palmer, Esq., M.R.C.S., of a daughter.

On the 20th ult., at Crescent, Waterloo, near Liverpool, the wife of Edward H. Fitzhenry, M.D., of a son.

On the 28th ult., at Lion-terrace, Portsea, the wife of J. Ward Cousins, M.D., of a daughter.

On the 30th ult., the wife of James Craigie, M.D., of Birkenhead, of a son.

MARRIAGE.

On the 27th ult., at Buccleuch-place, Edinburgh, Wm. T. Y. Smith, Esq., of Barnsley, Yorkshire, to Helen, youngest daughter of the late John Wilson, Esq., Surgeon.

DEATHS.

On the 12th ult., on board the Peninsular and Oriental Steamer *Simla*, on his passage from Calcutta to England, Wm. Crozier, Esq., F.R.C.S., H.M.'s Bengal Army, Professor of Anatomy and Physiology at the Medical College, Calcutta. [An obituary of this gentleman will appear in the next number of THE LANCET.]

On the 15th ult., at Ashmeade House, Gloucester, Wm. Morgan Meyler, Esq., J.P., M.R.C.S., aged 74.

On the 16th ult., at St. Ives, Huntingdonshire, Charlotte Esther Leigh, daughter of the late John Leigh, Esq., M.R.C.S., aged 8.

On the 28th ult., at the Woodlands, Isleworth, Vincent Litchfield, Esq., M.R.C.S., aged 35.

BOOKS ETC. RECEIVED.

Dr. Murchison on Continued Fevers.
Transactions of the Pathological Society.
Mr. S. Highley's Catalogue of Scientific Educational Collections.
Mr. Brown's Address at the Agricultural College, Cirencester.
Archives of Medicine.
Mr. Gay on Intestinal Obstruction by the Solitary Band.
Dr. Haldane on Cellular Pathology.

Medical Diary of the Week.

MONDAY, DEC. 8

LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M.
ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.
METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—4½ P.M. Dr. C. B. Radcliffe, "On Certain Disorders of the Brain and Nervous System, with special reference to the Changes in Opinion and Practice which result from recent Researches in Physiology and Pathology."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Clinical Discussion. — Dr. Thudichum, "On a Case of Rapid Wasting Palsy from Structural Disease of the Spinal Marrow." — Dr. Brunton, "On a New Auroscope, practically shown." — Mr. Hulke, "Fibro-Cellular Polype from the Ear"; "Ivory Peg used in a Case of Ununited Fracture." — Dr. Jephson, "On a Case of Myelitis successfully treated."—And other Papers.

TUESDAY, DEC. 9

GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
JUNIOR MEDICAL SOCIETY OF LONDON.—8 P.M. Meeting at King's College, Strand. Mr. Yeo, "On Ovariotomy."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—8½ P.M. Mr. Jardine Murray's "Case of a Double-handed Woman." — Mr. Spencer Wells: "History of Ovariotomy, with his Personal Experience in 50 Operations."

WEDNESDAY, DEC. 10

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE. — 8 P.M. Mr. John Taylor, Jun., "On the Construction of Labourers' Cottages and Sanitary Building Appliances."
NORTH LONDON MEDICAL SOCIETY.—8 P.M. Paper by Mr. W. Adams.

THURSDAY, DEC. 11

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.
LONDON HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.
LONDON SURGICAL HOME.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—4½ P.M. Dr. C. B. Radcliffe, "On Certain Disorders of the Brain and Nervous System, with special reference to the Changes in Opinion and Practice which result from recent Researches in Physiology and Pathology."

FRIDAY, DEC. 12

WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.

SATURDAY, DEC. 13

ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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THE LANCET *may be obtained from every respectable Bookseller or Newsman in the World.*

To Correspondents.

Student, (W.)—The new excretory function of the liver is the elimination of cholesterine from the blood. An American physician (Dr. Flint) attempts to show that there is a morbid condition of the blood dependent upon the accumulation of cholesterine, and which he calls *cholesteræmia*. It is said only to occur when there is a structural change in the liver. It is characterized by symptoms of a grave character, referable to the brain, and dependent upon the poisonous effects of the retained cholesterine on this organ. It may occur with or without jaundice.

Dr. Fuller's first lecture, "On Gout, Rheumatism, Rheumatic Gout, and Sciatica," will be published next week.

Enquirer.—The registrar is empowered by law to register a death under the circumstances stated. The certificate, however, must show that the deceased person had died without medical attendance.

One Disgusted, (Croydon.)—Such practices are most reprehensible.

THE UNIVERSITY OF ST. ANDREWS DEGREE.

To the Editor of THE LANCET.

SIR,—The Senate of the University of St. Andrews has issued a notice, stating that the last graduation under the old regulations is to be held in December. No doubt many will take advantage of this last opportunity, and perhaps a few remarks at this important crisis at which the University has arrived may not be amiss.

She has a sacred duty to perform towards her former graduates, and that is, not to relax the stringency of her examinations, which have for many years enjoyed a well-merited reputation. No one will object to a modified examination in favour of qualified practitioners, who have been some years in practice; but with students and unqualified candidates the case ought to be very different. Amongst the latter class of gentlemen an idea has gone abroad, that in the hurry and numbers of the examination they may possibly get through, as they call it. It is to be hoped that the University will not allow herself to become a loop-hole whereby incompetent men shall obtain admission into the profession, but will hold out her degree as an honourable distinction, which can only be obtained after a searching ordeal. Let us never have the long ago obsolete phrase, "Accipiamus pecuniam et mittamus asinum in patriam suam," repeated in reference to St. Andrews.

I am, Sir, yours obediently,

December, 1862. SPECTATOR.

Medical Missions.—Dr. D. J. Macgowan, who for the last twenty years has been one of the chief of the medical mission in China, has lately arrived at New York. Amongst other works, Dr. Macgowan has written a Chinese Handbook upon the Magnetic Telegraph.

Assistant-Surgeon.—Army medical schools are not of modern invention. In 1747, schools of military medicine existed in France. Metz, Toulon, Lisle, and Strasburg may boast of having set an example to Fort Pitt and Netley.

D. T., M.D.—In our opinion the operation should have been performed.

THE LONDON SCHOOL OF DENTAL SURGERY.

To the Editor of THE LANCET.

SIR,—In the medical news of your journal of last week is a notice of the presentation of a prize and certificates at the London School of Dental Surgery, 32, Soho-square. As that announcement implies that only one prize was awarded, I feel sure you will allow me to state, in justice to the successful competitors, that Mr. Charles Heath obtained, and was then awarded, the prize in Dental Surgery and Pathology, Mr. Dickenson the certificate of merit, and Mr. Millward Harding was honourably mentioned.

I am, Sir, your obedient servant,

Old Burlington-street, Dec. 1862. SAMUEL CARTWRIGHT, Jun.

A. F.—1. Yes, children are occasionally born with teeth. A short time ago there were two children born nearly at the same time in the Lying-in Hospital of New York, with the incisors of the lower jaw protruding.—2. Professor Heider, of Vienna, has related the occurrence of natural coloured teeth. The latter, of a light rose-red colour, occurred in twins, the daughters of Italian parents. Both the first and second dentition were marked by this peculiarity.

M. A. B. should apply to the gentlemen whose photographs she is desirous of obtaining.

A. B.—Any medical bookseller could supply the work.

Dr. R. Sisson.—It will be better that the comments should not be published. Differences of opinion on the treatment of cases may fairly arise; but it would appear invidious on the part of our correspondent to criticize too severely the treatment of a case of which he had no personal cognizance.

Dr. Brinton's important lecture shall appear in our next.

IDIOPATHIC TETANUS.

To the Editor of THE LANCET.

SIR,—In a paper by Dr. Goddard Rogers, in your impression of Nov. 29th, "On a Case of Idiopathic Tetanus," he says—"This afternoon galvanism was applied to the spine and buttocks for nearly ten minutes." "After the galvanism she is certainly better. It is applied to the recti abdominales, legs, arms, and spine."

What statement can be looser than the above? Does any reader of THE LANCET derive any idea of what was done? I should therefore feel obliged, for the sake of recording the case, so as to be of value in case of reference, if Dr. Goddard Rogers would enlighten me as to the following facts:—

What form of battery was made use of? Galvanism, as a term, should be only used where the continuous galvanic current is meant. As this is so little employed in England, I conclude that this was not the method Dr. Rogers resorted to. When the electro-magnetic battery is employed, its application is termed Faradization, in honour of Professor Faraday, the discoverer of the induction current. Dr. Duchenne, of Paris, with great good taste, originated this term. Then, again, there is a third apparatus now much in vogue, the magneto-electric machine. Besides the apparatus, there is the direction of the current, its strength, the nature of the conductors used—namely, their size and form, and whether wet or dry. All these points are necessary to be specified before any just idea of the effects produced, and their results, can be understood. Then, again, was it the skin, muscles, or nerves, to which the electricity was directed, and what was the theory of its expected effect?

Apologizing for troubling you and Dr. Rogers, yet with the hope of eliciting valuable information,

I am, Sir, yours, &c.,

Brook-street, November, 1862. HARRY LOBB, M.R.C.S.

The Title of Doctor.—It is impossible for us to publish a tithe of the communications we receive on this subject. The discussion has assumed proportions which we never anticipated. We commend to our correspondents the observations which appear in THE LANCET this week. It is useless to prolong a controversy in which the question at issue cannot be decided by statements emanating from interested parties. The question, if it ever be decided, must be solved by the judges of the land.

Nemo.—We perfectly agree with the sentiments expressed.

A. F., (Manchester.)—We cannot reply to such questions from anonymous correspondents. The matter is one of confidence on the part of the applicant, who must send his real name and address.

Dr. William Norris is thanked for his communication; but it is contrary to our rule to admit such contributions into our pages.

Mediens (Herts) will find the information he requires in the Students' Number of THE LANCET.

R. L. A.—There is good reason to believe that no such award was made.

A COMMON GRIEVANCE.

To the Editor of THE LANCET.

SIR,—I have just returned from vaccinating a baby, a few weeks old. On entering the house, and telling the mother the object of my visit, I noticed a considerable hesitation, which I could not account for, as at the confinement and afterwards all had gone well and pleasantly. Whilst vaccinating the child, the nurse told me that the registrar, a medical gentleman, when registering the birth, had made them promise to allow him to perform the little operation.

Now, I do not wish to "name" this person; but should I or any of my medical friends hear of such conduct being repeated, we shall not fail to do so.

I remain, Sir, yours truly,

November, 1862. M.R.C.S.E.

Omega.—The subject has been repeatedly noticed in this journal, and is one of the deepest importance. It is acknowledged that the Registration Act is deficient in many respects; but this is the fault of the statute, and not of the Registrar-General. Cases like those forwarded to us by "Omega" are constantly occurring. They show forcibly the necessity of a change in the law—a change which the progress of opinion will ultimately effect.

A Junior Member.—Want of space.

Dr. Hadaway's "Report of Two Cases of Encephalon Monsters" shall appear in our next impression.

W. S., (Redditch.)—1. It is very doubtful. It has been decided in a County Court that he cannot; but this decision is not final.—2. If the druggist does not practise as an apothecary, there is no penalty.

Dr. Ebenezer Lincoln.—An annotation on the subject appears in our present number.

Dr. Donovan.—We are not aware that the department of Government mentioned has any medical appointments to confer.

E. H. M.—1. We believe that an appeal to the Commissioners would be effective in preventing what is clearly a grievance.—2. We think not. Our correspondent should in both cases "appeal;" and if he fail to obtain justice, we should advise him to memorialize the Chancellor of the Exchequer.

A Civil Servant should make known his wants in our advertising columns.

SARRACENIA PURPUREA.

To the Editor of THE LANCET.

SIR,—Claiming, as I have a right to do, I will not say the honour, but the priority, of announcement to the profession of the Sarracenia purpurea, as the great anti-variolous remedy and elixir for suffering humanity,—being the first medical man in history to employ it in the practice, and in the face of a population of thirty thousand in this city of Halifax, when not a whisper of it was known to other medical men in the community, military, naval, or civil,—it is with no little assurance that I feel myself authorized to come forward upon the present occasion, and assert that the use of Sarracenia purpurea for the cure of small-pox, and I may add of the entire family of the exanthemata in the Cullenian sense, and arising from specific contagious poison, is entirely due to my agency, in the month of April, 1861, several months antecedent to any notice of it by any other medical man. The professional administration of this marvellous vegetable for variola dates from the Halifax Visiting Dispensary, Nova Scotia, and from my hands alone, and from no other; and your widely circulated journal has the true and just version of the matter in ascribing the professional demerits of this aspect of the sarracenia problem to myself. The only co-operator with me in the matter is a layman, a gentleman of Irish family, and distinguished, which figured in the history of the second Charles of England, Mr. John Thomas Lane, Lanes Park, Tipperary, Ireland.

On the 17th of April, 1861, Mr. Lane brought a Mic-Mac squaw to me, with the root of the sarracenia in her hand. Her testimony I have on oath that the medicine she brought was a secret with herself and old "Sally Paul," a centenarian, who had adopted her from childhood, thirty-seven years since, in Canada, where her protectress at the time was using the medicine, and among others had cured several soldiers in one of the regiments stationed in the garrison. Here, then, is the starting-point of the sarracenia, after its long and silent slumber of so many centuries. Poor old Sally went to her rest a few months ago, and but for the provident action taken when the small-pox had just commenced a fatal onslaught upon the people of this province, it might still have slept on, perhaps for ever, in the night of ages, until the general wreck of all things here below. Mary Anne Ferris, the squaw who placed the medicine in my hands, gave her statement to me on oath, that Mr. Lane and myself were the two first white men to whom the secret had been divulged, and that Sally Paul was then curing the small-pox at Tangier, the present gold district of Nova Scotia, where it was raging.

A few days after this I had occasion to try it in two cases, in which I at once recognised its wonderful characteristics—its astonishing influence upon congestive ganglionic irritability, and all cerebral neuralgic development. I saw that its functional action was principally renal; but that by mercurial or antimonial influences, the tide of action might be made diaphoretic or cathartic at pleasure. There was no mistaking the specific power at the root of the remedial action! The disease was as powerless in the grasp of the sarracenic agency as ever victim was in the coils of the anaconda, or equally resistless and terrible boa constrictor. Every painful manifestation of suffering disappeared in a few hours. I saw parents in agony at the utter hopelessness of the apparently dying child,—in one case of the severest pyrectic temperature, where the heat was sensible to the hand at a distance of two feet from the body, and the medical attendant had left the case as irrecoverable,—in this and in every instance of trial all around the sick bed became sensible of the astonishing powers of the sarracenia in a few hours. Of course I did not allow the grass to grow under my feet; but in these my beneficent intentions I was obstructed by a perfect hurricane of opposition from my professional *confrères*, who could not endure that I should have such confidence in the unreliable statements and experience of a savage. Every day my position as medical officer of the institution became more precarious, until at length the governors of the dispensary plainly told me that I must abandon my public advocacy of the remedy, or give up my situation. My convictions upon the subject I utterly refused to abandon; but the further use of the sarracenia, after having witnessed its undoubted alexipharmic powers in about five-and-twenty cases, I was obliged to forego. Here, then, my hands were tied. I was not allowed to write about it in the press. One or two letters of mine had already appeared in the journals of this city. The Corporation had been invited to have the medicine tested in an express establishment for the purpose, and that it should be divulged upon consideration of a reasonable compensation to the poor squaw. But all in vain. At the instigation of the Board of Health, they had set their faces against it, and thus the matter stood. Sally Paul's pretensions now, after the action of the dispensary, began to have some weight with white folk, and even with her own tribe, who in general mistrusted her. Her own people came flocking to her, and many were the applications from the city. Mr. Lane was distributing the medicine far and wide, whilst I was obliged to lock on in silence. Judge then of my astonishment, months after this, upon Mr. Lane coming to me with the intelligence that Mr. Miles had gone up that very day, he was informed, to obtain the secret of the cure from Sally Paul, and that with a bribe of a few pounds he had obtained it. The next intimation I had of Mr. Miles's action in the matter was his letter to the Epidemiological Society, totally ignoring the dispensary, and claiming for himself the *primum mobile* of its professional announcement! My treatment of small-pox with sarracenia commenced in April, 1861. Mr. Miles's letter to the Society appeared in November of the same year. At the time of my trials with it in April, Mr. Miles, an acquaintance of Mr. Lane, and in garrison here at the time, was daily meeting Mr. Lane, and asking him how Dr. Morris was getting on with the sarracenia. Small-pox was at this very time in garrison, under Mr. Miles's inspection, and soldiers had died of it under Mr. Miles's own eyes, and under treatment to which Mr. Miles must have been a party. If this gentleman possessed any experience of the medicine, how is it that he was not using it simultaneously with myself? He could not have used it in the garrison cases, for the soldiers had died. Had they died under treatment by sarracenia, Mr. Miles must have known it. Had he known it, he could not have written that letter to the Epidemiological Society. A glance at Mr. Miles's communications to THE LANCET (August 25th and October 18th, 1862) shows us that he has no practical knowledge of the subject whatever. Dr. Richardson's case, quoted, corresponds precisely with the statements invariably given by myself in various quarters, and yet Mr. Miles arrogantly claims for himself all jurisdiction of originality and professional patronage in the proceedings.

Why, Sir, there is no complex mystery in the use of the sarracenia. Nothing can be more simple. The most obvious and unmistakable feature of the sarracenia as to taste is its decidedly "willow flavour," so like the "salicin" that anyone would take its infusion for that of the alkaloid named. Whatever part of the sarracenia imparts to the tongue this willow flavour may be relied upon as the cure for variola. The roots, young or old, all exhibit this flavour, as also the rootlets, rhizoma, radicals, and even the loose floccuh of the epidermis, that so easily separate from the plant by friction. I have used them all in my cases equally with success. A drachm of any such portions of the plant infused in a pint of water until reduced one-half, and a wineglassful given every three hours all through the disease, whatsoever the symptoms, is all that is necessary to be done. This treatment is sure to give a good account of the patient. Stronger doses than this would have a tendency to make young patients vomit, and reject the medicine at a time when not a moment should be lost. There is no mistaking the sarracenia in its "habitat." Imagine half a dozen purplish-red vegetable pouch-looking leaves, in shape like a young straight cow-horn, inverted and attached by the smaller end to a root not unlike the sarsaparilla; the leaves or pouches disposed around the root in a whorl of six or more, and from the centre or axils of the leaves one or two rush-formed, glabrous scapes springing up, about eighteen inches, quite as smooth, hard, round, and dense as "the rush," but hollow and catheter-like; imagine this "rush-like scape" to terminate in a flower, with a brownish, glossy calyx, three-lobed, a germ and stile, with stigma expanding over them, like a university cap, of fine terminal points at the margin; the petals, of striated crimson, overlapping the expanded stigma upon its marginal incurvatures; three concave, small bractes, corresponding with the calyx in colour and in curvature, presenting in all an image or flower in contour quite mistakable at a few paces for a "camelia;" attach a hood like a squaw's cap to the larger end of the cow-horn leaves aforesaid, and looking upwards to catch all moisture from the sky, and pass it into the recumbent horn; let the horns have upon their upper margin a broad fringe each, and tapering away to the shank and axil of the leaf, or small end of the horn, like the squaw's leggings, and you have a sufficient idea of the sarracenia plant as it grows in the bogs, that if you chance to fall in with, you never can mistake.

I remain, Sir, yours, &c.,

Halifax, Nova Scotia, 1862. FREDERICK W. MORRIS, M.D.

P.S.—Anyone now who will compare my statements with the following language of Mr. Miles in THE LANCET:—"It was during the last outbreak of the disease amongst the Indian settlements in Nova Scotia that the decoction of the root achieved its greatest triumph; that the faith in its efficacy became wide-spread and general,"—will at once discover the real features of this question, as truth must ever represent it. It was precisely at this moment that H.M.S. *St. George*, with his Royal Highness Prince Alfred, arrived here from the W.I. station, when Mr. Lane, anxious for the son of our beloved Sovereign, sent a package of the medicine on board to prevent any possible casualty from the disease. When I first saw Mr. Miles's letter to the Epidemiological Society, so many months after the sarracenia had undergone its probation here, and the scourge had passed from it, I was disposed to consider it but a generous impulse of Mr. Miles to the *rescue* of one to whom he was an utter stranger; but Mr. Lane could not help thinking it an intention to *supplant*, as no reference was made to the initiatory action by me at the dispensary. The communications of Mr. Miles and his brother since then in THE LANCET have completely enlightened me, and I am sorry to find the spirit of charity in this direction quite frozen within me.

The sarracenia antidote I have no doubt is the providential agent to deal with the contagious element *en masse*,—to extinguish contagion by some specific disorganizing process in a way and by a power utterly disproportionate in its infinitesimally minute concentrativeness, just as the fraction of a grain pervades from a needle's point the entire system. It is true that the variolous element, under sarracenia, is expelled with accelerated current by the renal outlets, and is in this way eliminated from the system as "the saccharine" is in diabetes. But it is something more than this. This very urine itself should communicate variola were it all variolous; but the virus is gone, effete, and impotent—the sarracenia has extinguished it. I have no hesitation in pronouncing Sarracenia purpurea to be the remedy for variola, varicella, rubeola, lepra, psora. I have used it with unqualified success in these cases. It not only *relieves*, but it *extinguishes*, and, what is more, in any given instance it is sure to emancipate from subsequent abnormal developments, as a general rule. In psora, lepra, and skin disease, I have little or no trouble, and I find a liberal use of the chloride of calcium a very decided auxiliary and quickener of the sarracenic virtues in skin treatment.

It would be just as well to mention here that any person carrying with him the root of the sarracenia may chew his way with perfect impunity through small-pox wherever it may stand in his path. I sincerely hope it may be so with plague, Asiatic cholera, or any other scourge. F. W. M.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Ranald Martin; Dr. Fuller; Dr. Pavy; Dr. Brinton; Mr. Critchett; Mr. Henry Thompson; Dr. Hughes Bennett, Edinburgh; Dr. Gardner; Mr. Henderson; Mr. Yates; Mr. Laurence; Mr. Frampton; Mr. Johns; Mr. Wollaston; Mr. Lincoln; Mr. Fowler, Winterton; Mr. Harding; Mr. Carpenter, Durham; Mr. Lobb; Dr. Sisson; Mr. Hadaway; Mr. May; Mr. Mason, St. Leonards, (with enclosure;) Mr. Haworth, (with enclosure;) Mr. Clancy, (with enclosure;) Dr. Garrett, Hastings; Mr. Furley, Edinburgh; Mr. Davies, (with enclosure;) Mr. Annandale, Edinburgh; Mr. R. Metcalfe, Whitstable; Mr. Griffin, Weymouth; Dr. Inman, Liverpool, (with enclosure;) Mr. Hale, (with enclosure;) Mr. Sanders, Wamphray, (with enclosure;) Mr. Hollingsworth, Rathfriland, (with enclosure;) Mr. Beveridge, Dunfermline, (with enclosure;) Dr. Brent, (with enclosure;) Mr. Judge, (with enclosure;) Dr. Russell, Glasgow; Mr. Forshaw, (with enclosure;) Dr. Sumpter; Dr. Ansell, Jamaica; Mr. Lara; Dr. Bazire; Mr. Dawson, (with enclosure;) Mr. S. Cartwright; Dr. J. Baker, Campbeltown, (with enclosure;) Dr. S. Currie, Hong-Kong; Mr. E. Boden, Smalley; Mr. Hugoe, Chacewater; Dr. A. Dalrymple, Norwich; Dr. Crean, Heckington, (with enclosure;) Mr. N. Griffin; Mr. Whitford; Mr. Smith, (with enclosure;) Mr. Parker, Bath; Dr. Harvey, Cheltenham; Mr. Moore, Hales Owen, (with enclosure;) Dr. Rogers; Dr. de Meschin; Mr. O'Toole, Pen Rhos, (with enclosure;) Mr. J. Horsley, Cheltenham, (with enclosure;) Mr. Hayes, Longton; Mr. Spanton, Loughborough, (with enclosure;) Mr. J. Smart; Dr. Rayner; Dr. Cooper, Exeter, (with enclosure;) Dr. Donovan, Heanor; Mr. Wilding, Montgomery; Mr. Burnham, (with enclosure;) Mr. Deane; Dr. E. S. Willett, Isleworth; Mr. Denby, (with enclosure;) W. S.; Nemo; A. B.; A Junior Member; M.D.; Odontologic Society; Enquirer; Medicus, Herts; A. F.; A. B., (with enclosure;) Liverpool Royal Infirmary, (with enclosure;) Spectator; D. C. B., M.D.; R. L. A.; A Civil Servant; Medical Society of London; M. A. B.; &c. &c.